

# ATHLETIC JOURNAL

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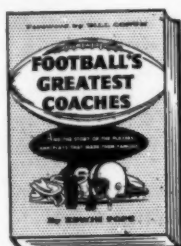


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# from here and there

**B**ULA, Texas High School, champions of their region in six-man football last fall, can lay claim to being national champions as far as participation is concerned. Of 26 boys in school, 25 were on the football squad and the remaining one was master of ceremonies at the football banquet . . . Pete Rucinski of Roosevelt High School in East Chicago, Indiana, may not be the *winningest* coach in the country but we will stack his record up against the best. In the last 10 years his football teams have won seven state championships, 10 city championships, and gone undefeated during five of those seasons. In case anyone might look with disdain upon the single wing as a high-scoring offense, we would mention that Pete's teams have led their conference in scoring during eight of the last 11 seasons — yep, he uses the single wing . . . Many states are having trouble maintaining interest in cross country but not Texas. There the interest has increased so much in only three years since the sport became a state-sponsored activity, that it will be necessary to separate the meet into two divisions . . . Also, Texas is experiencing tremendous growth in baseball. Last year 698 schools participated and this year the figure increased by 31. Also of interest is the fact that of the schools dropping baseball this year, as compared with those which competed in it last year, considerably more were in the large school category than those classed as small schools . . . Five members of Michigan's 1949 Rose Bowl team are practicing physicians . . . Johnny Kovatch, newly signed assistant on Chuck Mather's staff, played high school ball under Elmer Burnham, now the head coach at Rochester University.

**T**HE high schools in the State of Washington recently voted to prohibit playing interscholastic basketball games between December 24 and January 1 . . . It is common practice for a coach to handle two sports, but somewhat of a rarity when the sports fall during the same season. Thomas Bell is both head swimming and basketball coach at Pomona-Claremont College. His father, Walter Bell, is director of athletics at Polytechnic High School in Long Beach, California . . . We would like to pay our respects to "Phog" Allen who retires after 46 years of coaching. Allowing an hour and a half for playing time and thirty minutes for warm-up, "Phog" has spent the equivalent of 84 days and nights in actual court-side warfare. The following is "Phog's" account of the funniest incident he ever saw in basketball. "In 1909, when I was at Haskell, we were playing the Ohio National Guard at Piqua, Ohio. An Ohio guard had taken a rebound and dribbled behind the bleachers which bordered the playing floor. There was no rule in those days to keep a player in bounds. One of my boys, Rusty Belly, an Iowa Indian, was covering this guard. There were aisles in the bleachers where this Ohio man could have emerged and taken a clear shot at the goal. He was feinting and dribbling, moving back and forth behind those bleachers. Rusty Belly stayed on the court trying to watch him. He was peering between those bleachers and the people in them, shuffling and moving with the dribbler. Somehow he never lost the guy. The Ohio guard tossed the ball to one of his teammates on the court." "Phog," more than any other individual deserves the credit for basketball being adopted as an Olympic sport.

## TRACK CINDERS

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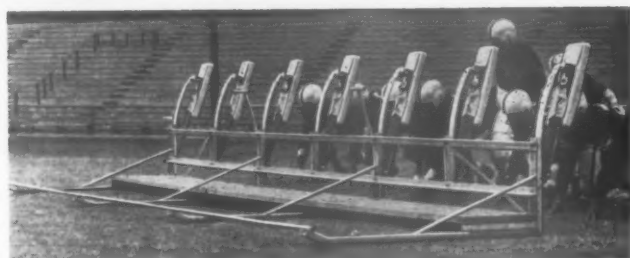
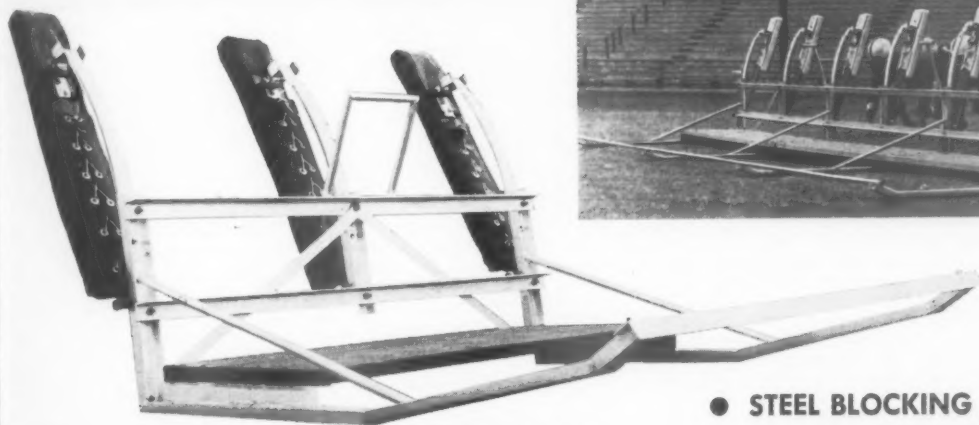
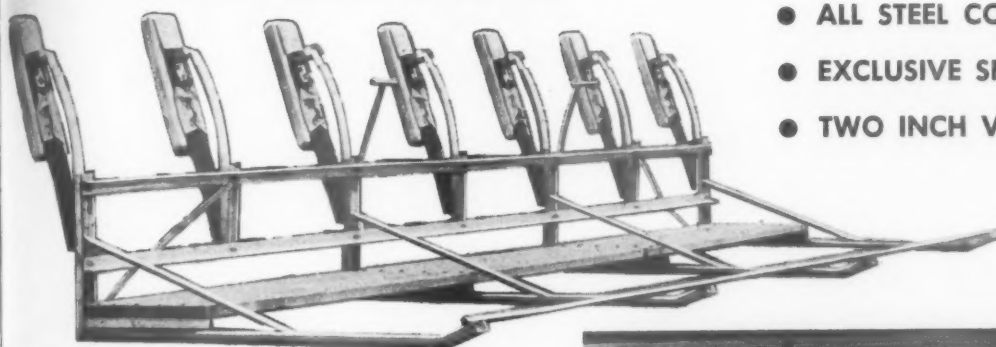
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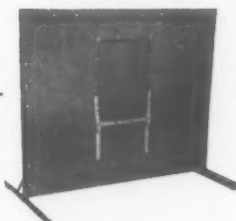
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8



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5

## BOB HUNT WINNING THE TWO-MILE RUN IN THE 1955 DRAKE RELAYS

Illustration 1 shows Bob Hunt at the beginning of his stride, with his left foot on the ground. Notice the slight bend in his left knee. Good arm and shoulder relaxation are shown in Illustration 2. Illustration 3 shows Bob in a good position to drive forward off his left foot and ankle. A good drive off the left foot, no excessive knee lift, and good hip roll are shown in Illustration 4. Notice the body relaxation while both of Bob's feet are off the ground (Illustration 5). Illustrations 6 and 7 show good body relaxation. Notice Bob's excellent position at the finish of the stride (Illustration 8).

By **ELVIN C. DRAKE**

*Track Coach, University of California at Los Angeles*

# Tactics in Distance Running

**T**HE most popular distance races in our country which lend themselves to tactics are the mile and two-mile. This statement does not mean that tactics are not necessary in other races but these are the two races we have in mind.

Distance runners of today run on carefully laid flexible plans — flexible because as the race develops, an entirely different situation from the plan called for may be necessary.

There are, we believe, two main tactical maneuvers with variations of each — tactics for the front runner and for the positional runner. A front runner is usually the man who leads

the race, although it is quite possible that he may be back of the leaders and run a front runner type race.

The front runner will have several choices in tactics. First, he may attempt to set such a fast pace that he as well as those who choose to follow him will have nothing left for the final sprint. This would be an attempt on his part to tire the sprint-type runner to the point where he would not be able to sprint past the leader at the finish. This would take a comprehensive knowledge of pace, as real timing is necessary in order to be exhausted on reaching the tape and not too far before.

Another tactic for the front runner is to try to open up a gap between himself and the rest of the field. If he can get out in front by 10 to 15 yards, his strategy is working perfectly and he should try to increase the gap. This gap may be opened by a quick burst of speed at the start, in an early attempt to get out in front. However, this tactic is seldom successful.

Another tactic for the front runner is to run an uneven pace. In running this way he moves out with a sudden acceleration of speed over a short distance in each lap. If this pace is used, it is best to use the change-of-pace on





5 4 3 2 1

the curve. As the runners follow the leaders with their eyes, the distance looks shorter across the curve. They are watching the leader on the diameter of a circle.

In either of these methods the key to success is the ability to judge pace accurately. The chances for success with the above tactics are greater in the longer race. When runners are of near equal ability, the one who makes the fewest mistakes may well be the winner.

Now we will consider the tactical position of the positional runner. He has looked over the field carefully and attempts to follow the best pacemaker. This runner must be prepared to run on a pre-arranged pace for the first lap or two so he will not be drawn out too quickly by some inexperienced or excited competitor. He may stay back and study the field, never getting too far behind the leaders. As the race progresses, he must work his way up through the field until he arrives at a place immediately behind the leaders. After he gains this position, he must have the tenacity of a bulldog and let nothing shake him loose from the leader. Having a runner directly on his shoulder may become very disconcerting to the leader, especially if he knows that the man is the better sprinter.

If the positional runner allows himself to get 10 or 15 yards back at any time, he must become a front runner, and he has lost his tactical position. In positional running the runner must have attained his position soon after the halfway point. When

it becomes necessary to pass a runner it should be done quickly, because it may shock the opponent, catch him off balance, and it may be too late for him to recover. The positional runner must know how far he can go on his build-up, and how far he can carry the actual sprint or all-out effort. In a fast race it is best to challenge late, and in a slow race to challenge early.

**“DUCKY” DRAKE** graduated from UCLA in 1927 after having been track captain in 1925. In 1929 he returned to UCLA as assistant to Harry Trotter, a position he held until 1947 when he became head coach. In addition, he has been head trainer since 1942. Last year his team finished second in the NCAA Meet and some of the finest track performers of the past decade have been his proteges. Drake coached Olympic team members Cy Young, Craig Dixon, and George Brown.

Physiologists tell us that the most economical way to run a distance race is to run even time. A steady pace makes less demand on reserves of energy than frequent variations of pace. However, this method may not always be the best.

The mental side of running is very important. Worry uses up energy and causes fatigue in a runner. Excite-

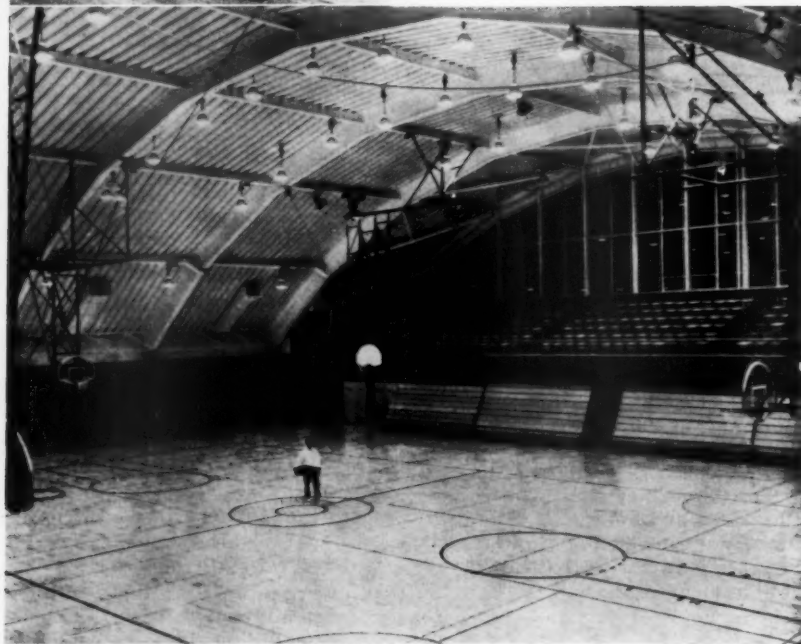
ment, anxiety, fear, anger, necessary changes in plans during the running of a race, all may cause tactical errors to be committed. A runner should not be discouraged by his mistakes in tactics. He should remember that the greatest runners often make such mistakes.

It is best to distribute energy as evenly as possible. If a runner is leading, he should run the race he planned. It should be his aim to open up a gap by the last 660 and hold on to the finish. If he is not leading when he passes a runner, he should pass on the straight-away, and pass quickly. The shortest distance to use in running a race is on the inside of the track.

The illustrations used in conjunction with this article are of Bob Hunt taken at the Drake Relays in 1955. He had planned to run each lap in approximately the same time, running the last as fast as possible. In planning his race the Drake Relay record was used. He was free of all the early crowding and ran well, according to plan. This race had a large field and did not spread out as much as we had hoped. As the race progressed, it was necessary for Bob to move up to the leaders. The runners were bunched, and he had to run on the outside on some of the curves. Passing on a curve is not considered good technique in running, although it may be better than to digress from the original plan of timing and rhythm. In this race we believe it proved best. With a smaller field he might have broken the record.



# A Stainless Steel and Aluminum Gymnasium



**A**LASKA, the country which the United States purchased from Russia for a mere pittance, is one of the most rapidly advancing areas on earth. To those who think of this majestic country as a vast wilderness filled with caribou and Eskimos let us say something about the Alaska of today. There are now many paved highways and railways where for many years there were only trails.

The northern villages have grown into cities of 5,000 to 45,000 people. Theaters, recreation centers, churches, and all organizations are here in abundance. Salmon fishing, mining, logging, and farming are rapidly developing in this rich area. The territory is on the brink of statehood and along with these progressive steps a fine educational program with modern plants has sprung up overnight.

Superintendent J. E. Danielson, with the help of the local people, carried out a long-range planning program which culminated in the building of one of the most modern schools to be found anywhere in the United States. Ketchikan's new school is constructed of stainless steel and aluminum, the most practical materials for use in this rugged climate. Along with the new school the athletic plant was built.

The gymnasium building is quonset

**B**ILL MARTINESON competed in football, basketball, and track at Baylor, being selected a member of the All-American track team for two years, and a member of a track team which toured Europe. A year ago his basketball team lost one game, that being to Juneau, the All-Alaska champions.

style with glass tinted windows filling in the half-circle ends above the balcony seats. Tan, yellow, and white were selected for the colors to aid in the observation of activities. Running parallel to the floor are bleacher seats which unfold when pulled out from the wall. In the balcony on either side are permanent chairs. The heating plant is set up for free circulation of air and a means of keeping a constant comfortable temperature. On the ceiling are six loud-speakers which carry all announcements.

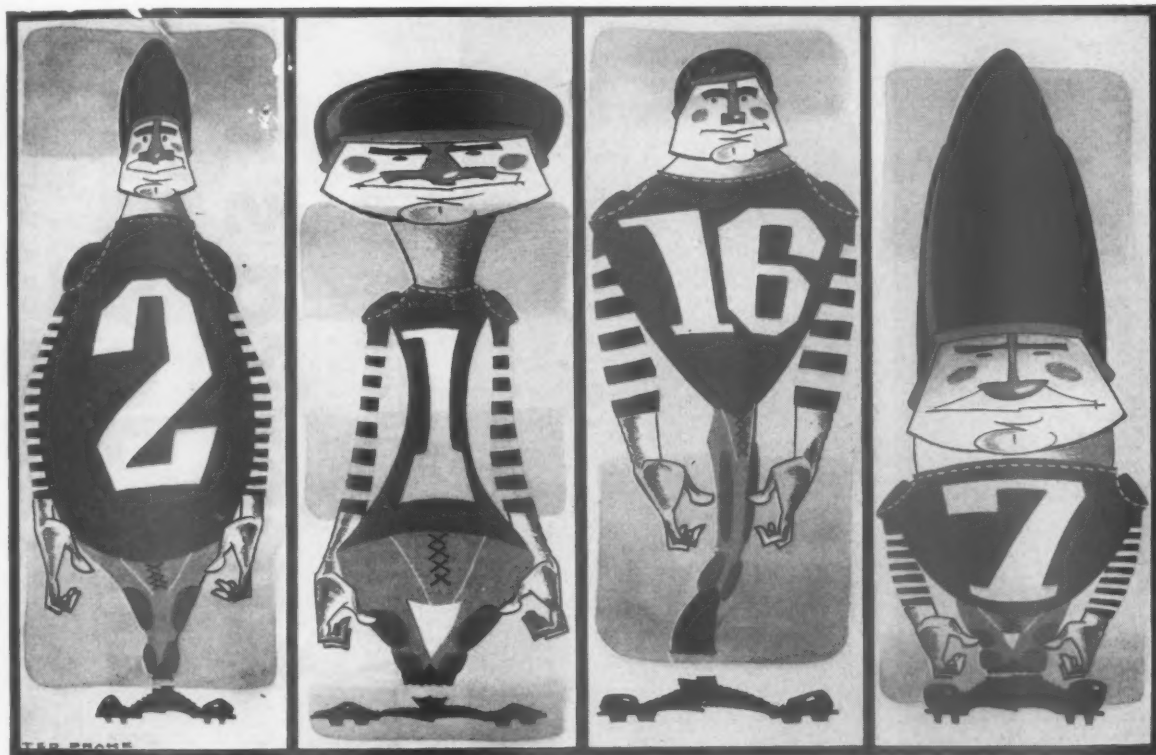
The gymnasium floor measures 128 feet by 106 feet with one official court and two cross courts. A crown decorates the center of the regular floor and symbolizes the Kayhi Kings. Glass backboards are used on the main court and metal backboards on the other two. The backboards can be raised to the ceiling by means of a small electric motor. Sixty-five 300-watt lights are used in lighting the gymnasium. These may also be lowered by means of the electric motor and cables. In opposite corners of the gymnasium are electric scoreboards which are synchronized so every spectator can watch the progress of the game from any angle. The floor's base is concrete and a spongy, inch-thick shock-absorbing material was placed on it. Over this material was spread a cementing substance to glue the boards down. The boards themselves are hardwood maple pieces one inch thick, two inches wide, and eleven inches long. They are interlocked with a metal strip which fits into the sides

**By BILL MARTINESON**  
*Athletic Director, Ketchikan, Alaska, High School*

(Continued on page 67)

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**LES BITNER, University of Kansas, 1955 NCAA Champion**

# America's Future in the Javelin Throw

**By SENON A. CASTILLO**  
Track Coach, Arizona State College  
Tempe, Arizona

**S**INCE this article is appearing prior to the Olympic Games of 1956, a few comments are in order.

Then we have the younger group of Cal. Tech., 231'7"; Ben Garcia, Arizona State, 230'10". Then we have

Illustration 1 shows Les Bitner approaching his chuck mark and at the



SINCE this article is appearing prior to the Olympic Games of 1956, a few comments should be made regarding our chances of retaining the title we won in the javelin throw in the last Olympics.

After reviewing the 1955 season, it may be said that we have the best group of javelin throwers this country has ever known. This year we will be starting with the veterans, Bud Held, and the present record holder, Cy Young, who should be getting back into shape and throwing up to capabilities. Bill Miller is out of competition since he is now coaching.

Then we have the younger group of college boys, which include throwers who could easily blossom out and take over the top men. Competition at last year's NCAA Meet was second only to the Olympics. The first two competitors broke the NCAA record, the next four men broke the meet record. Anyone of the following ten men could be on the Olympic team, and possibly be a winner at the 1956 Olympic Games: Les Bitner, Kansas University, 246'1"; Al Cantello, LaSalle, 245'3½"; Gerry Church, Oregon State, 232'6"; Chuck Higgins, Brigham Young, 232'5"; Phil Conley,

Cal. Tech., 231'7"; Ben Garcia, Arizona State, 230'10". Then we have John Bugge, Stanford; Bob Kimball, Stanford; and Lynn Greene, San Jose State.

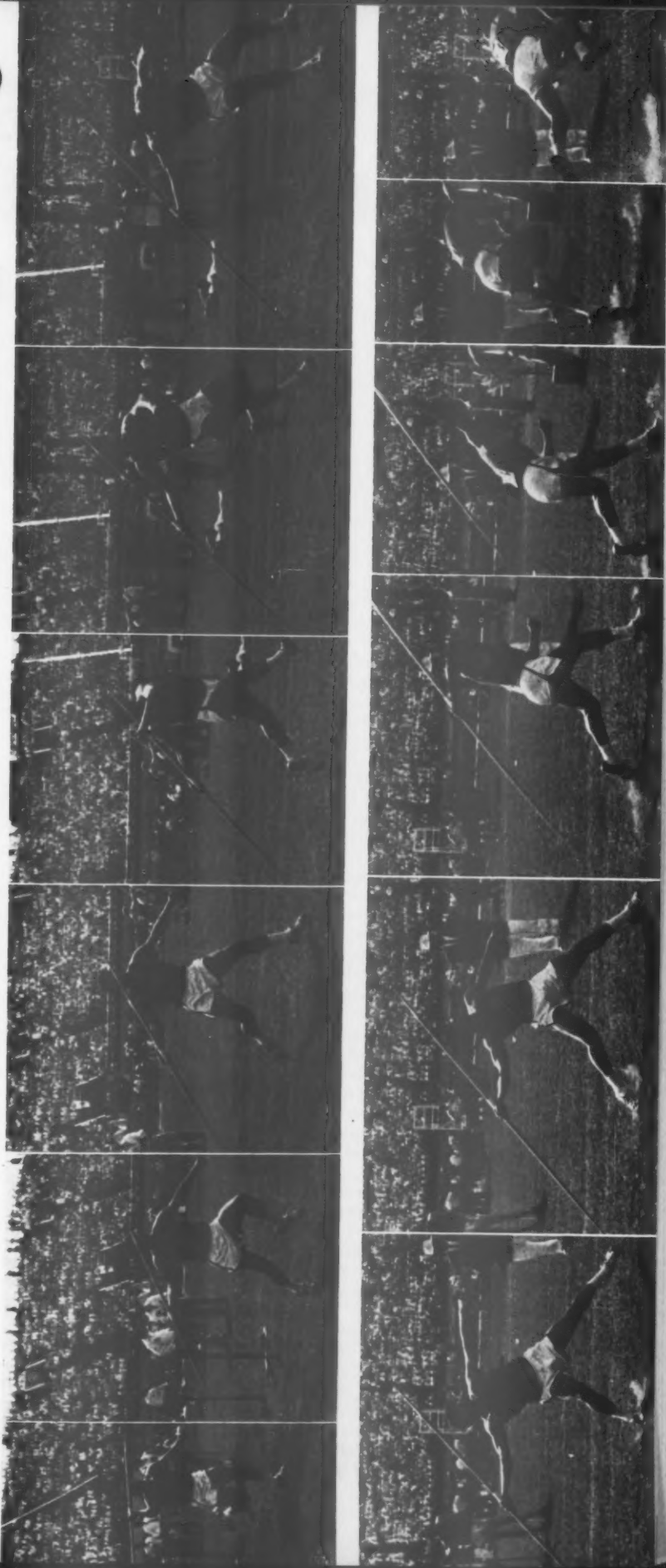
Most of these boys are using the running form which is known as the Finnish style. A few use variations in order to achieve greater distance.

Two of the boys we would like to analyze are Les Bitner and Ben Garcia. They are opposites as far as physical build is concerned. Bitner is tall, slender, and has a very good long, strong arm. Garcia is short, stocky, and very powerfully built.

Illustration 1 shows Les Bitner approaching his check mark, and at this point he has extended his arm backward while keeping the javelin in the angle of flight. Illustration 3 shows him reaching his last check mark, planting his left foot, and getting ready for his cross-over step. This movement is placing him in the throwing stance. Illustration 7 shows both feet planted and Les is ready for delivery. It will also be noticed that the angle of the javelin has not changed. Bitner starts his throw by driving off his right leg and bringing his

(Continued on page 63)

## BEN GARCIA, Arizona State at Tempe, 1955 Drake Relays Champion



# The Theory and Fundamental Principles of Defensive Football

By DONALD E. FUOSS  
Football Coach, Shepherd College

**P**RESENT-DAY football requires the coach to be as sound defensively as he is offensively. While there is a great deal of emphasis placed on ball control, the wise and experienced football coach realizes there is still a great deal of truth in the old axiom that *the best offense is a good defense*.

Defense plays a greater role in football today than it ever has before. Adverse weather and other physical conditions can seriously affect a team's offense, yet have practically no effect upon a well-coached defense. A team with only a good offense is not going to defeat the team that has both a good offense and a good defense. A strong defense not only demoralizes the opposition by its unyielding tactics, but also gives a tremendous lift to its own offense by securing the ball in favorable locations on the field. There have been many teams whose offense has been stopped but they won the games with the touchdowns scored by the defense. A brief survey of the results of games during the 1955 football season illustrates this point.

Georgia Tech defeated Miami, 14-6, scoring on a punt return and on an intercepted pass. Florida intercepted four passes, returning one for a 100-yard touchdown run, in defeating Mississippi State, 20-14. Stanford upset Ohio State, 6-0, with Chuck Taylor's *gambling* defense. The Buckeyes had four scoring opportunities in the second half but could not cross the fighting Indians' goal line. When Michigan defeated Michigan State, 14-6, Michigan set up its first touchdown with an intercepted pass and its second by blocking a punt.

A safety won for Holy Cross 15 to 14 over Colgate. The Stanford-Washington game ended in a 7-7 contest after both teams turned enemy fumbles into touchdowns in the opening quarter. Villanova defeated Richmond, 16-14, with a safety. In upsetting Auburn, 27-13, Tulane scored its final touchdown on an 87-yard pass interception. Michigan State defeated Purdue, 27-0, by recovering five fumbles and intercepting four passes. Florida State defeated Villanova, 16-13, when a defensive lineman took a Villanova hand-off on the goal line and

fell into the end zone for the winning touchdown. Auburn came from behind to defeat Mississippi State, 27-26, on a 75-yard intercepted pass. Auburn edged Georgia, 16-13, scoring on an intercepted screen pass.

Purdue's defense-minded Boiler-makers, using a fumble recovery as the only break they needed, defeated Indiana, 6-4. In the case of Army's victory over Navy, 14-6, Army recovered five of Navy's fumbles. Boston College, using the theory *wait for the opposition to make the mistakes*, defeated Holy Cross, 26-7. All of the tallies were preceded by either an interception or a recovery of a fumble. The University of Houston turned a blocked punt, a fumble recovery, and a 69-yard punt return into three, fourth quarter touchdowns to defeat Wyoming, 26-14.

In the bowl games, the turning point in the Oklahoma-Maryland game was McDonald's 32-yard punt return. Oklahoma intercepted three passes, including one which they returned for an 82-yard touchdown. They also recovered two of Maryland's fumbles, one on the Oklahoma 10-yard line when Maryland was threatening to score. Georgia Tech set up its only touchdown by recovering a Pittsburgh fumble early in the game. Later Tech stopped Pitt on Tech's own 1-yard line making a fine goal line stand. Wyoming defeated Texas

Tech in the Sun Bowl, 21-14, setting up the winning touchdown by recovering a Tech fumble on the Red Raiders' 13-yard line.

One of the main reasons for upsets in football is that the favorite team fails to score when it has the opportunity to do so and the underdog capitalizes on a break and wins the game. Many times a team will find it easier to stop the opposition than to score.

Considerable time and coaching should be spent on developing a team's defensive game. It should be given the same importance as the offense. Minnesota's head football coach, Murray Warmath, has been quoted as saying, "We go for the defense first. We ask, 'How can we stop them?' You must answer that one before you go to the offense."<sup>1</sup>

Coach Jim Tatum has long been an advocate of strong, well-planned defenses, and has always stressed defense in his overall coaching philosophy. After the Orange Bowl game, a United Press correspondent quoted Coach Tatum as saying, "Oklahoma has a fine defensive football team . . . and defense is the payoff in football." Coach Jess Hill of the University of Southern California said, ". . . The development of a defensive philosophy on the part of the coach must be presented to the players so that it takes on more importance to them than offensive football . . ."<sup>2</sup>

In developing a sound philosophy of defensive football we must take into consideration certain objectives and basic principles.

## Objectives of Defensive Football

While the obvious basic objective of defensive football is to keep the opposition from scoring, a more functional objective of defensive play is to prevent the opposition from scoring the *easy* touchdown with a long pass or a long run. Defensive teams that are able to prevent the *easy*

<sup>1</sup>Tom Siler, "Minnesota's Murray Warmath," *Saturday Evening Post*, Oct. 22, 1955, p. 142, p. 39.

<sup>2</sup>Jess Hill, "Pass Defense," *Proceedings, American Football Coaches Association*, 1953.

**D**ONALD FUOSS served overseas with the artillery and then returned to complete his college work at Catawba, playing on the 1947 Tangerine Bowl team. He coached at Spencer, North Carolina, High School and then earned his doctor's degree at Columbia. Fuoss coached at Bethany College before going to Shepherd College just before the 1953 season. Last year his team was undefeated and untied, and Fuoss was named West Virginia "Coach of the Year."

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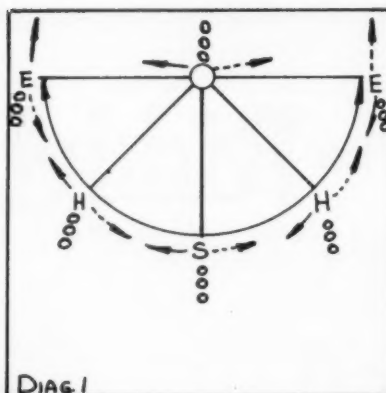


touchdown are generally difficult to score against and they are seldom defeated.

A second objective of defensive play, which is often overlooked, is to obtain possession of the ball. The defensive team may gain possession of the ball by holding the opponent for downs, forcing a punt, recovering a fumble or intercepting a pass. The defense can score on a punt return, an intercepted pass, a blocked punt, a recovery of a fumbled ball in the end zone, and by forcing the offense to give up a safety. The offensive team can score by passing, running or kicking a field goal. Therefore, the odds are five-to-three in favor of the defense scoring.

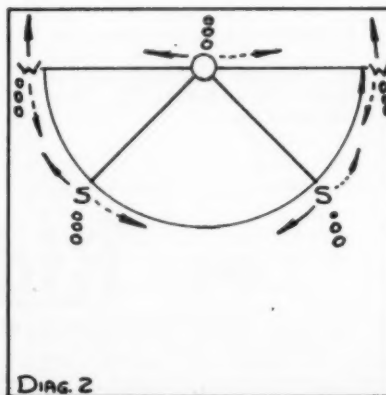
In attempting to realize these two objectives, we must recognize several pertinent factors. First, there is not a perfect defense in football — the field is too large to cover. Since the one play that will defeat a team the quickest in football is the long pass for the *easy* touchdown, this play should be eliminated first. Therefore, in his thinking and planning, the coach must *give something to get something*. When the situation is a first down and 10-yards-to-go, the defense should not be trying to stop the offense for no gain unless it is threatening to score. The defense wants the opposition to make a slight gain, less than three yards. It wants the opposition to run the ball again and finally end up with fourth down and about two yards to go for the first down. Even if the offensive team makes its first down, it is difficult to keep a sustained drive moving on the ground. It is difficult for the offensive team to keep from making a mechanical error — fumble, miss a block, fail on an assignment, hit the wrong hole, etc. The offense bogs down and is forced to give up the ball to the defense. A team cannot have a sound defensive theory if it is trying to stop the offense for no gain on every play.

Second, offensive play is assignment football because the offense has a definite advantage in knowing *when* the play will start and *where* it will go. The offense can concentrate all of its efforts toward gaining this objective. Defensive play is reaction football because the defense must react *after* the ball has been snapped. Failure by the offense generally means loss of yardage and perhaps loss of the ball. Failure on the part of only one man on the defensive team to react properly may result in a touchdown for the opposition. This pertinent factor cannot be minimized if the objectives of defensive football are to be realized.



Third, before selecting defensive alignments and variations from these basic alignments, the coach should consider the following question: How many different defenses and variations can my team execute properly without making mistakes which will cause my players more difficulty than our opponents? Every defensive alignment must be able to defend against a run and a pass at the same time, whether it is an odd or even, box or diamond setup. Consequently, we are interested in what has been described as a *rubber band defense* — one which will bend but will not permit the ball-carrier to break through the defensive perimeter for the *easy* touchdown; one that will snap back, affording the defense proper angles of team pursuit and opportunities for gang tackling.

We are not certain of the origin of this phraseology, but at the University of Maryland Coaching Clinic last summer Coach Jim Tatum gave credit to his former backfield coach, Vernon Seibert, for coining the phrase a *rubber band defense*. Oklahoma's great line coach, Gomer Jones, has described their theory of defensive play as follows: "We like to think of our defensive secondary as a wheel, with



the ball being the hub of the wheel and our defensive men as the rim of the wheel. We want the rim to stay intact, revolving with the ball as the ball moves. We endeavor to keep all of the offensive operations within the rim of the wheel which will enable the interior man to assist on all situations."<sup>3</sup> The theory and principles are the same for both defenses with only the terminology being slightly different.

On our three-deep diamond defense, the ends are included in the perimeter, as shown in Diagram 1. Diagram 2 shows our two-deep box defense, in which the two corner or wing men form the perimeter.

The secondary goes on the assumption that every play is a pass until they are positive it is a run. They are the last line of defense and have only one pattern of play. Consequently, these players should make fewer errors with only one pattern of play, and be able to prevent the *easy* touchdown which is the first objective of defensive football.

### Principles of Defensive Football

In order to realize the objectives of defensive football, the following general principles, with their numerous ramifications, must be taught, demonstrated, and reiterated frequently: 1. Build positive defensive morale constantly. 2. The proper angle of team pursuit is imperative. 3. Gang tackling is essential for good defensive play. 4. Pass defense must receive adequate consideration.

### Defensive Morale

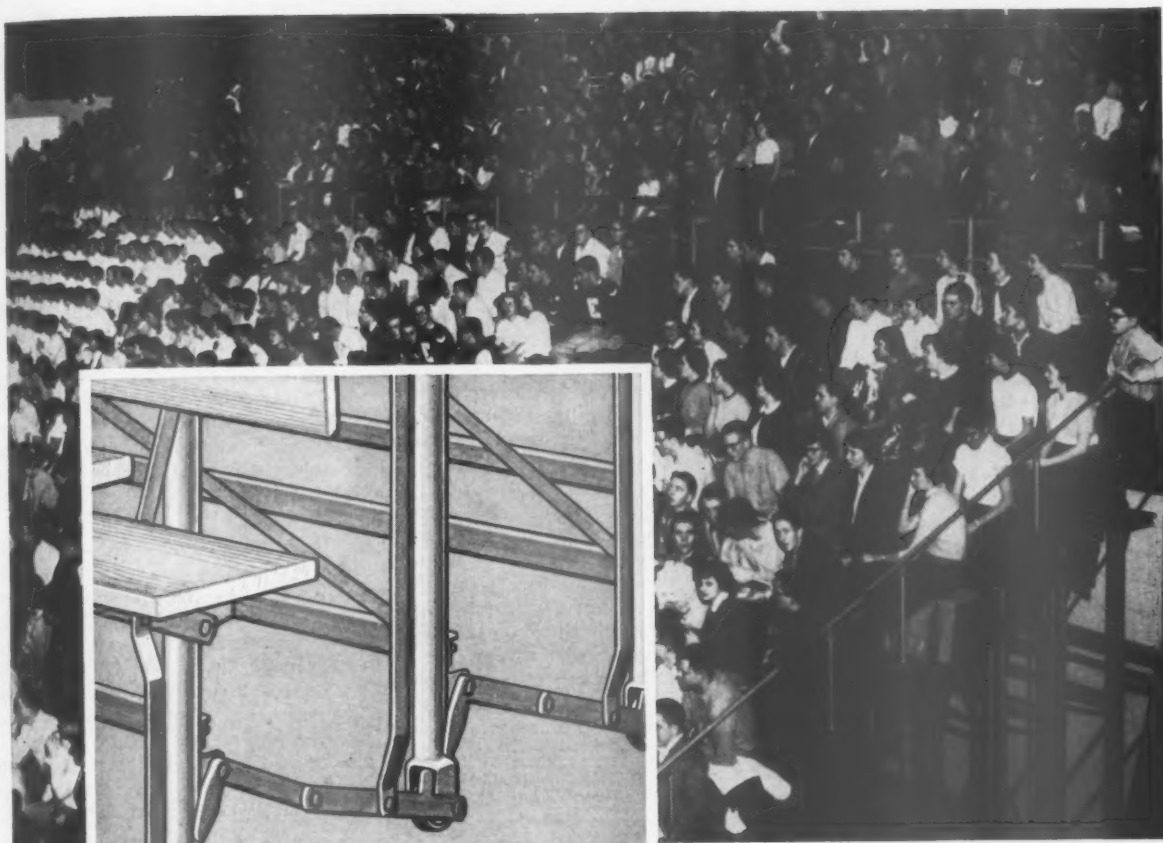
In our coaching we try to cultivate a favorable attitude toward defensive play and its major objectives. It is advisable to point out that the odds are five-to-three in favor of the defense scoring. Our players are constantly reminded about the *offensive-defense*. How many points did the defense score? How many fumbles did we recover while on defense? How many passes did the defense intercept? Did we block any punts? How many yards did we gain on the punt return? How many times did the defense get the ball for the offense?

We try to cultivate two viewpoints toward our opponents' passing game. First, a pass is an opportunity and invitation for the defense to intercept and gain possession of the ball.

<sup>3</sup>Gomer T. Jones, "Defenses for the T Formation," Summer Manual Proceedings, American Football Coaches Association, 1954, p.3.



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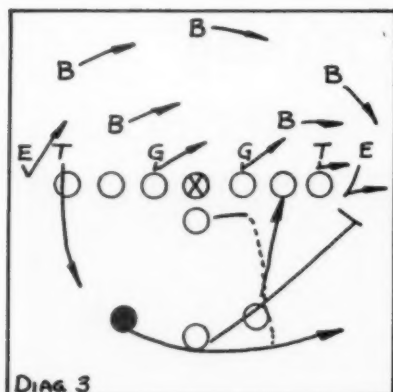
spectator weight is not required. Thus, you are protected against movement or accidental folding of the unit even when it is only partially filled. Here's a measure of safety that no spring-loaded locking mechanism can ever offer.

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Second, we concede the opposition will probably complete a number of short passes inside our *rubber band defense*. However, one interception will nullify a number of completions, providing the offense does not score on one of these completions. Our players do not panic and wring their hands when the opposition completes several passes.

We try to sell the players on the idea that the closer the opposition gets to our goal line, the more difficult it becomes for them to score. The advantage is with the defense because they have less territory to cover. Offensive ends and backs cannot get behind our secondary because the end zone line assists the defense and limits the offense.

If the opposition waits until fourth down to punt, the advantage is with the defense. We have the opportunity either to block the punt or to set up the return. Either technique, if successfully executed, can produce a score for the defensive team.

We like to have the defensive players think in terms of giving the offense a difficult time. Everything the offense receives is earned the hard way. Bowden Wyatt, head coach at Tennessee, sums up our point of view as follows: "... If he (the opposition) takes it on the 20 and consumes several minutes going 80 yards to score, we figure we've made him bleed every step of the way. Don't forget, you can punish the other team much worse when you're on the defense. And if they go a long way and don't score, you can really dishearten them with a long quick kick. I've been a lineman. I know. You look up and see the ball sail back down to your own 20, and it takes something out of you."<sup>4</sup>

<sup>4</sup>Fred Russell and Tom Siler, "Coach On the Spot," *Saturday Evening Post*, Nov. 5, 1955, p. 133.

We always talk in terms of co-ordinated team defense. It is a co-operative enterprise which is no stronger than its weakest link. Each player must be well grounded in the fundamentals of defensive team play.

We firmly believe defensive morale is built by having the players talk and chatter to each other. When the opposition attempts to pass, all defensive men should call, *Pass*; on a fumble or blocked kick, *Ball*; on an interception, *Block*; on an obvious running play, *Sweep*, *Reverse*, *Trap*, etc. It is imperative for the defensive secondary to maintain oral contact with each other by calling, *Ends cross*, *Take him*, *My man*, *I've got the deep man*, etc. This is good football.

### Proper Angle of Team Pursuit

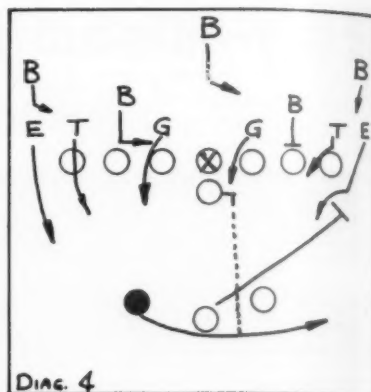
Carney Laslie, line coach at Army, stated at the Virginia Polytechnic Institute Clinic, "The most important factor in defensive football today is the proper angle of team pursuit." Many coaches consider this factor as the starting point for a discussion on defensive football.

Team pursuit may be defined as a planned system of converging upon the man who has the ball as quickly as possible, with the idea of the entire defensive team operating as a flexible *rubber band* unit, containing the ball-carrier inside the perimeter, and maintaining proper pursuit angles in order to obtain gang tackling. Coach Murray Warmath's definition is as follows: "The proper angle of pursuit is nothing more than getting over to the spot where you are going to make the tackle. What good does it do to have eleven good tacklers if they don't have any team speed and if they are not willing to run over and get to the spot where they need to be in order to make the tackle?"<sup>5</sup>

A defensive man may be blocked, but a good defensive player never stays blocked. He should recover as quickly as possible, reacting to pressure, and begin his proper angle of pursuit. There is some angle that every man on the defensive team can take on the ball-carrier. If the defensive player starts his pursuit at the wrong angle, he immediately eliminates himself as he is running the inside arc on the ball-carrier. i.e., chasing him from behind and with no chance of heading him off.

Players must be coached in the proper angle of pursuit because this

<sup>5</sup>Murray Warmath, "Fundamental Defenses Vs. the Single Wing and Conventional T," *Football Forum*, Vol. 1, No. 2, Oct. 1955, p. 2.



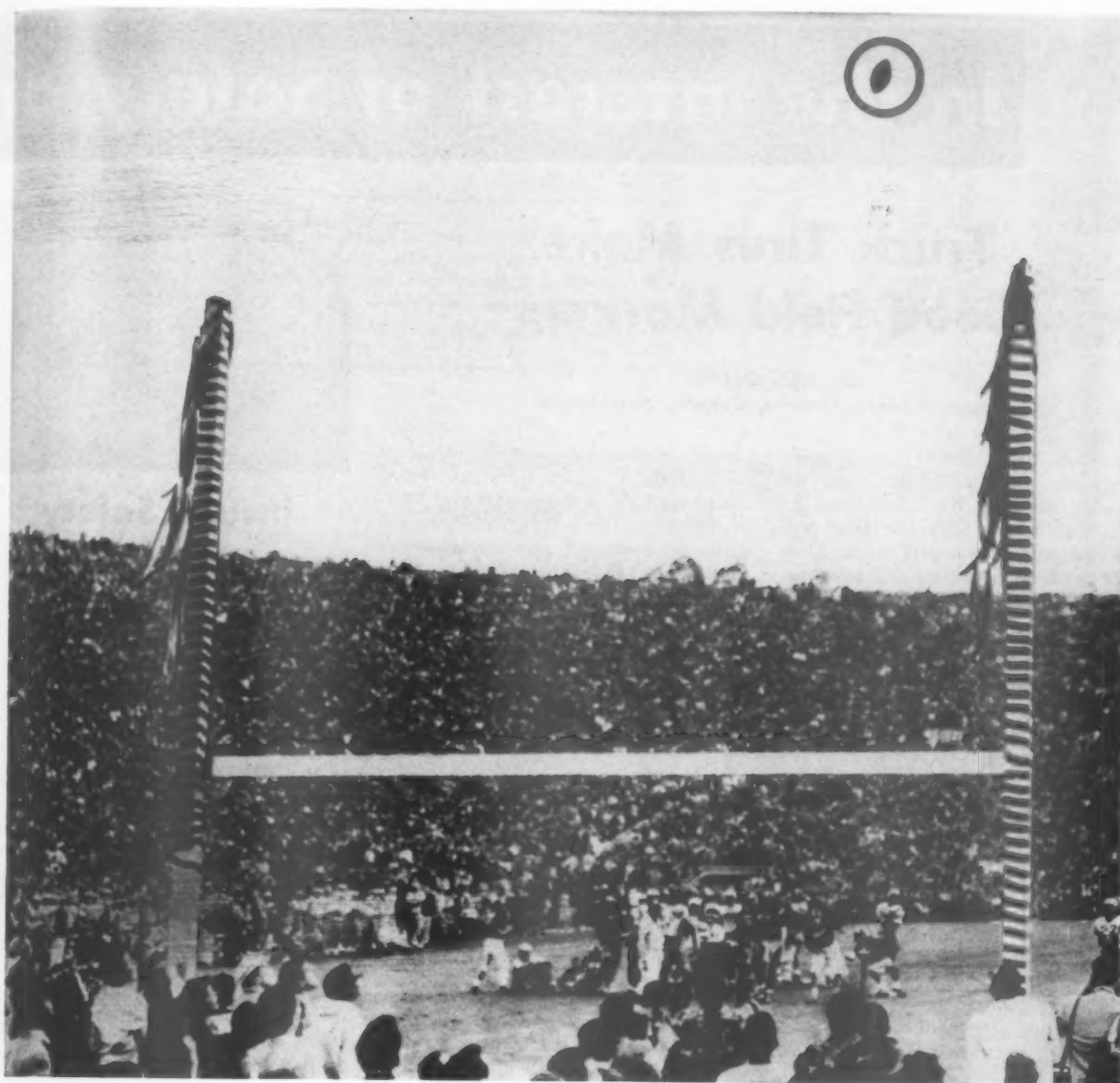
principle of defensive play is probably violated more often than any other axiom. Coaching the correct angle on every defensive play in practice is the only way to get satisfactory execution during a game. It must be impregnated into the overall defense or the coach will never be able to defend all of the different offenses he is likely to encounter.

Diagram 3 shows the correct angles of team pursuit against a sweep to the right. The farther the defensive man is from the hole, the greater is his angle of departure from the line of scrimmage. One man on the side who is removed from the flow of the play is designated as a container or chase man to take care of the reverse, roll-out to the off-side, cut-back behind the line of scrimmage, etc. The container may be an end or a tackle.

Several obvious errors are shown in Diagram 4. The defensive players have penetrated too deep, probably trying to stop every play for no gain. They are running around blocks, taking the inside arc, and becoming chase men instead of pursuit men. In taking the inside arc they will be chasing the ball-carrier from behind with no chance of heading him off. Diagram 4 also shows individual defensive play and not co-ordinated team play. Such defensive tactics contribute to the success of the *easy* touchdown for the opposition.

It is the natural tendency for the defensive player to penetrate too deep on his initial charge. To overcome this tendency we either play the linemen back off the line so their initial charge will not carry them beyond the line of scrimmage until they have had a chance to analyze the play, or we employ the forearm shiver instead of the forearm lift. We advocate using the shiver. There are several reasons for this decision. First, the defensive player can make maximum use of the one

(Continued on page 57)



## The kick that rocked the Rose Bowl

7 seconds to break the tie. A good snap, a good spot on the 31-yard line, a good boot—and 100,809 people had a new page for their memory books.

The ball handled and kicked so well in that crucial play was the Wilson "TD"—a football so new it had not been available for the regular 1955 season. Yet in the East-West, Blue-Gray and Rose Bowl games it proved so superior in "feel" and in handling, there was only one lost ball due to fumbling.

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# In the Interest of Safety and

## Truck Tires Make Good Field Markers

By KEN GLORE

Football Coach, Ontario, Oregon, High School

**I**N many high schools and smaller colleges athletic budgets are of necessity limited. We have tried to outfit our teams with the best possible protective equipment, and in order to do so have had to economize on certain other pieces of equipment.

Standard sideline markers cost several hundred dollars and we attempted to see if we could not devise something of a homemade nature. We decided to use truck tires and were pleased to learn that these can be

readily obtained through local service stations. The tires were cut in two and then turned inside out and bolted together. Then they were painted with white enamel and the numbers painted on. Either black paint or a school color can be used for the numbers. Our total cost was approximately \$3.65 for the complete set. In addition to giving our budget a big boost, we found that since the tires are flexible, the chance of causing injury to a player is very limited.



## Insure Safety Through Proper Procedures

By HAROLD SCHLOSSBERG

Shell Bank Jr. High Sch.  
Brooklyn, New York

## Horseshoe Table Triples Use of whirlpool

By PAUL SMARKS

Fitzgerald High School, Van Dyke, Mich.

**A**N item which has proven tremendously helpful to us is this homemade horseshoe table for use with our whirlpool bath in the training room. The table triples the number of boys that can be accommodated safely in the whirlpool at one time. Thus, the table becomes a real boon to schools that have but one whirlpool at their disposal.

To make this horseshoe table we started out with a piece of 3/4-inch

plywood, 41 inches wide, and 32 inches long. The piece of plywood was placed on top of the tank and we worked out the radius. Then we used a band saw and cut out a horseshoe-shaped top 10 inches wide. Next we added five pairs of legs and braced them well in order to support the weight of at least four students. All of the parts made of wood were given several coats of paint to keep them from becoming water-soaked.



**D**URING our regular physical education classes we use the following three-pronged safety plan which has proved to be very effective in decreasing the incidence of accidents in our boys' program at Shell Bank Junior High School in Brooklyn.

The three parts of this plan are as follows: student leadership, posted signs, and the safety pledge. The plan is implemented in the following manner:

1. *Student Leadership.* During regular squad rotation and the supervised optional program, each of the ten activities in the gymnasium is under the supervision of a student gymnasium captain. In addition to their duties, these captains are especially trained to be particularly alert that all safety rules for their activities be observed. The captains receive special training during meetings of the Captains' Club which is a regular after-school activity. As an incentive for participation, each captain has a distinctive T-shirt and receives at least 85 per cent as his mark for gymnasium.

2. *Posted Signs.* The safety rules for each activity are posted conspicuously on the wall adjacent to the activity. General safety rules are posted in appropriate places in the gymnasium and locker room.



# Letter Administration

These are the second four entries in our contest to encourage dissemination of ideas pertaining to safety and administration, as announced in the December issue. For each suggestion printed, the Athletic Journal will pay \$10. At the end of the current year the two best suggestions, as selected by a panel of judges, will receive \$75 and \$25 respectively.

**3. Safety Pledge.** These safety procedures are explained and taught in the gymnasium during hygiene classes in the unit on safety. All of the rules and procedures are then formalized into a mimeographed pledge which is distributed to all of the students. The entire class recites the pledge and promises to uphold all of its provisions.

The following are the appropriate safety rules for each activity:

**Chinning** — Do not swing on the bar. A reaching stool is to be used by shorter students.

**Bag Punching** — Gloves are to be worn by all participants. Boys who are waiting for a turn are to stay in the safety area.

**Basketball** (dribble and lay-up) — The dribble and lay-up are to be performed only at this basket. Perform the skill correctly.

**Rope Climbing** — Do not climb until you are completely exhausted. Do not slide down the ropes. Use a towel or the rosin bag to dry your hands before climbing.

**Basketball** (free throw shooting) — Free throw shooting only, no fancy or trick shooting.

**Standing Broad Jump** — Do not run and jump. Wait in the safety area for your turn.

**Tumbling** — Perform only the authorized stunts. Wait for the signal of the spotter before performing.

**Table Tennis** — Players must wait in the safety area for their turn to play.

**Basketball** (set, fancy, and trick shooting) — One shooter at a time. Shoot from the authorized area.

**Push-Ups and Sit-Ups** — All boys must warm-up before doing sit-ups.

**General Safety Rules** — Wearers of eyeglasses must use eyeglass guards. Wait for your turn at all times. Do not perform an activity if the captain is not present. Only boys who are in complete gymnasium uniforms are allowed on the gymnasium floor.

## Long-Range Master Schedule an Aid to Better Administration

By WALLACE M. DIEHL  
Worthington High School  
Sioux Falls, S. Dakota

A master schedule that is worked out in advance eases many administrative problems both within the member schools and the conference.

The following round-robin schedule has been used in our conference, the Eastern South Dakota Conference, for the last five years. It was originally devised by Cletus "Red" Clunker, former athletic director and football coach at Watertown High School in South Dakota. As secretary of our conference, we have completed the following revision to carry us through the year 1969.

This round-robin schedule has simplified our scheduling problems materially. It takes care of the home and away situation nicely and over the period indicated assigns favorable dates for all schools of the conference. The same schedule can be used for both football and basketball; however, when such is the case it is desirable to assign different numbers to the teams in order that the schools would not have the same sequence of opponents in both sports.

Football Numbers			
Brookings	1	Madison	5
Sioux Falls	2	Mitchell	6
Huron	3	Yankton	7
Watertown	4	Aberdeen	8

The schedule shows odd numbered years. For even numbered years, reverse here and there.

YEAR 57 59 61 63 65 67 69  
& (58) (60) (62) (64) (66) (68) (70)

#1  
2T 4H 3T 7T 6H 5H 8T  
3H 7T 6H 5H 8T 2T 4T  
6T 5H 8T 2T 4T 3H 7H  
8H 2T 4T 3H 7H 6T 5T  
4H 3H 7H 6T 5T 8H 2H  
7T 6T 5T 8H 2H 4H 3T  
5H 8H 2H 4H 3T 7T 6H

#2  
1H 3H 6H 8T 4T 7H 5H  
6T 8T 4T 7H 5H 1H 3T  
4H 7H 5H 1H 3T 6T 8H  
5T 1H 3T 6T 8H 4H 7T  
3H 6T 8H 4H 7T 5T 1T  
8T 4H 7T 5T 1T 3H 6H  
7H 5T 1T 3H 6H 8T 4T

#3  
5H 2T 1H 6H 8H 4T 7T  
1T 6H 8H 4T 7T 5H 2H  
8T 4T 7T 5H 2H 1T 6T  
7H 5H 2H 1T 6T 8T 4H  
2T 1T 6T 8T 4H 7H 5T  
6H 8T 4H 7H 5T 2T 1H  
4T 7H 5T 2T 1H 6H 8H

#4  
8T 1T 7T 5T 2H 3H 6T  
7H 5T 2H 3H 6T 8T 1H  
2T 3H 6T 8T 1H 7H 5H  
6H 8T 1H 7H 5H 2T 3T  
1T 7H 5H 2T 3T 6H 8H  
5T 2T 3T 6H 8H 1T 7T  
3H 6H 8H 1T 7T 5T 2H

#5  
3T 6T 8T 4H 7H 1T 2T  
8H 4H 7H 1T 2T 3T 6H  
7T 1T 2T 3T 6H 8H 4T  
2H 3T 6H 8H 4T 7T 1H  
6T 8H 4T 7T 1H 2H 3H  
4H 7T 1H 2H 3H 6T 8T  
1T 2H 3H 6T 8T 4H 7H

#6  
7T 5H 2T 3T 1T 8H 4H  
2H 3T 1T 8H 4H 7T 5T  
1H 8H 4H 7T 5T 2H 3H  
4T 7T 5T 2H 3H 1H 8T  
5H 2H 3H 1H 8T 4T 7H  
3T 1H 8T 4T 7H 5H 2T  
8H 4T 7H 5H 2T 3T 1T

#7  
6H 8T 4H 1H 5T 2T 3H  
4T 1H 5T 2T 3H 6H 8H  
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1H 5H 2H 3T 6T 8T 4H  
2T 3T 6T 8T 4H 1H 5T

#8  
4H 7H 5H 2H 3T 6T 1H  
5T 2H 3T 6T 1H 4H 7T  
3H 6T 1H 4H 7T 5T 2T  
1T 4H 7T 5T 2T 3H 6H  
7H 5T 2T 3H 6H 1T 4T  
2H 3H 6H 1T 4T 7H 5H  
6T 1T 4T 7H 5H 2H 3T

# The ATHLETIC JOURNAL

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MAJOR JOHN L. GRIFFITH

JOHN L. GRIFFITH

Founder

Publisher

## Future Olympic Champions of the United States

THREE years ago we pointed out, in a series of editorials, what we considered the softness of our youth. We were one of the first to call this condition to the attention of the public. At the time there were some who disagreed and so advised us. There were others who felt as we did and wrote letters, complimenting us for bringing the situation to light.

At the time we did not have any concrete evidence to present because it was not until later that the famous Kraus-Weber report was issued. Our views were based solely on personal observations and discussions with coaches. There was not the activity on school playgrounds that prevailed formerly. Driveway basketball courts were noticeably void of activity, and many cities were finding that their tennis courts received little use.

We think there is a decided change among the youth of the elementary school age level. The sport stars are replacing the television cowboys as idols.

The change, we are sure everyone will agree, is for the better. What has prompted this change? Any number of reasons can be offered and most of them will be valid. Undoubtedly, President Eisenhower's interest in the situation served to focus attention on the problem. Television is no longer a novelty for today's youth. In fact, many of our young people are bored with it and eager for new forms of entertainment. These would probably be two of the most frequently offered reasons.

Another very significant reason, we feel, is to be found in the leadership itself. In March 1953 we

said: "The growth of the Little League, Biddy Basketball, etc., has not been due entirely to the promotional efforts behind them. In fact, we think the growth was due to the fact that the promotional seeds fell on fertile ground. In other words, the younger boys wanted some type of athletic endeavor."

Mr. Matt Thiltgen, Superintendent of the San Mateo, California, Recreation Department in discussing their program which found 1000 boys taking part in baseball last year said: "About four years ago the argument between the 'pros and cons' of Little League Baseball was waxing hot. There was much to be said on both sides, but the one thing apparent to us was that the need for this type of activity was not being met in many places by the recreation departments and that Little League, good or bad, was the result. Feeling that such a baseball program was a proper function of the recreation department and recognizing that we were not meeting the need, we set about to organize a truly recreational junior baseball program."

Today, the whole program of youth baseball is widely accepted and many of the most prominent figures in the field of physical education and recreation are lending valuable assistance to the program.

The National Sports Festival, which is observed nationally, calls attention to the values of sports and recreation. In some instances it was found that the community was well aware of the values to be found in sports and only needed the right leadership to get the program underway.

Galena Park, Texas, a city of 7,000 population, as part of its observance of Sports Festival, held a water carnival to open the municipal swimming pool. So effective was it that 400 children turned out for swimming instruction classes that could accommodate only 250. The result was the formation of a second class later in the summer. This is another illustration that the interest in sports is present among the youth and only a push by the adult leadership is necessary to bring it to the fore.

The Y.M.C.A. held a national fitness clinic in December. At this clinic the program centered around the Kraus-Weber tests and means of conducting the tests throughout the Y.M.C.A. program. Quoting from the minutes: "In answer to the question, 'What qualified leadership is now available for conducting programs for youth?' the group reported two types of leadership, (1) lay leadership that comes from the membership, and (2) professional leadership that may be developed anywhere and is employed for the technical leadership job that is required."

The leaders in the Y.M.C.A. program have realized there are not enough professionally trained leaders in their program to do the job required.

*(Continued on page 79)*

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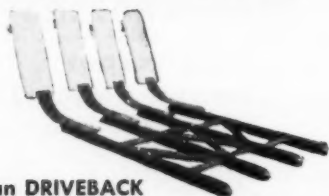
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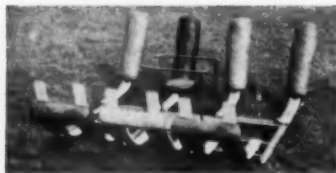
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# The Huddle

## Is It Old-Fashioned?

By **BUD ANDRUS**

*Football Coach, Minnetonka High School, Excelsior, Minnesota*

**W**ITH the many defenses employed these days, a quarterback seldom knows what to expect when he calls a play in the huddle. Many college coaches admit that the only reason they have their teams go into a huddle is to determine the check signal the players will use when they arrive at the line of scrimmage. Other teams meet behind the line of scrimmage only to determine the number upon which the ball is to be snapped. The question arises—why waste so much time and energy huddling? We feel that in the not too distant future the huddle might well become as obsolete as the flying wedge.

Mooseheart Boys' Home in Illinois has played for years without a huddle. This team travels all over the Middle West playing strong opposition and has compiled a fabulous record. While watching Mooseheart play in 1949, we concluded that there were several advantages to this style of play, and determined to devise a similar system which would give our team these same advantages.

Let us look at some of the opportunities available to the team that plays without an offensive huddle.

The greatest advantage which we have noticed is the tremendous pressure that is put upon the defense. By calling the plays at the line of scrimmage, we have virtually eliminated the opposing team's opportunity to switch defenses on every play. Our quarterback is drilled extensively on defensive recognition. He learns this phase of the game so thoroughly that he can stand out there under the

center and spot a defensive weakness almost immediately. We find that defensive linemen dislike playing against us. As a rule, they are used to a little rest between each play, and do not like the idea of having to go right back to work again. The best example of the pressure the defense labors under came to light in our last game of the 1955 season.

The opposing coach was attempting to substitute on defense whenever we were going to work on a weak spot. Our team was lining up quickly and our quarterback was calling plays so rapidly that we were able to draw four five-yard penalties because the opposition was caught with twelve men on the field. They did not even have time to run on and off the field.

Coaches and fans who watched Oklahoma perform in the Orange Bowl game of 1956 were amazed at the number of plays this team was able to crowd into a short period of time by merely hurrying up their huddle. It is our feeling that by not huddling at all we can do better. Our players are able to execute more plays per game than a team that spends 20 or 25 seconds in the huddle on every play.

In our opinion, this system also gives us a definite psychological advantage. The players seem to be proud of the style, and realize that it is something different. They know they are forcing the opponent to do something he does not want to do.

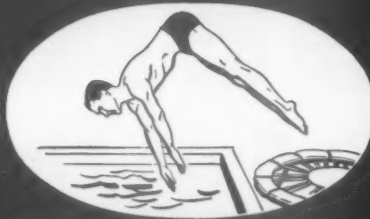
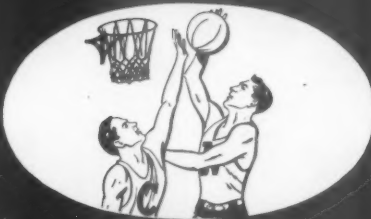
Our team is better organized on the field. All coaches have encountered the football player who simply has to talk in the huddle. He always stands ready to disagree with the quarterback, or to offer his advice. This type of dissension is impossible if we do not huddle.

Now then, let us assume that we recognize the advantages afforded by the no-huddle system. The next step is to work and perfect a method of signal calling on the line of scrimmage that will convey a simple mes-

*(Continued on page 42)*

**BUD ANDRUS** graduated from Cornell College in Iowa after competing in football, basketball, and track. He coached at Anamosa and West Branch, Iowa high schools before joining the Minneapolis School System. In addition to coaching football, he serves as head wrestling coach.

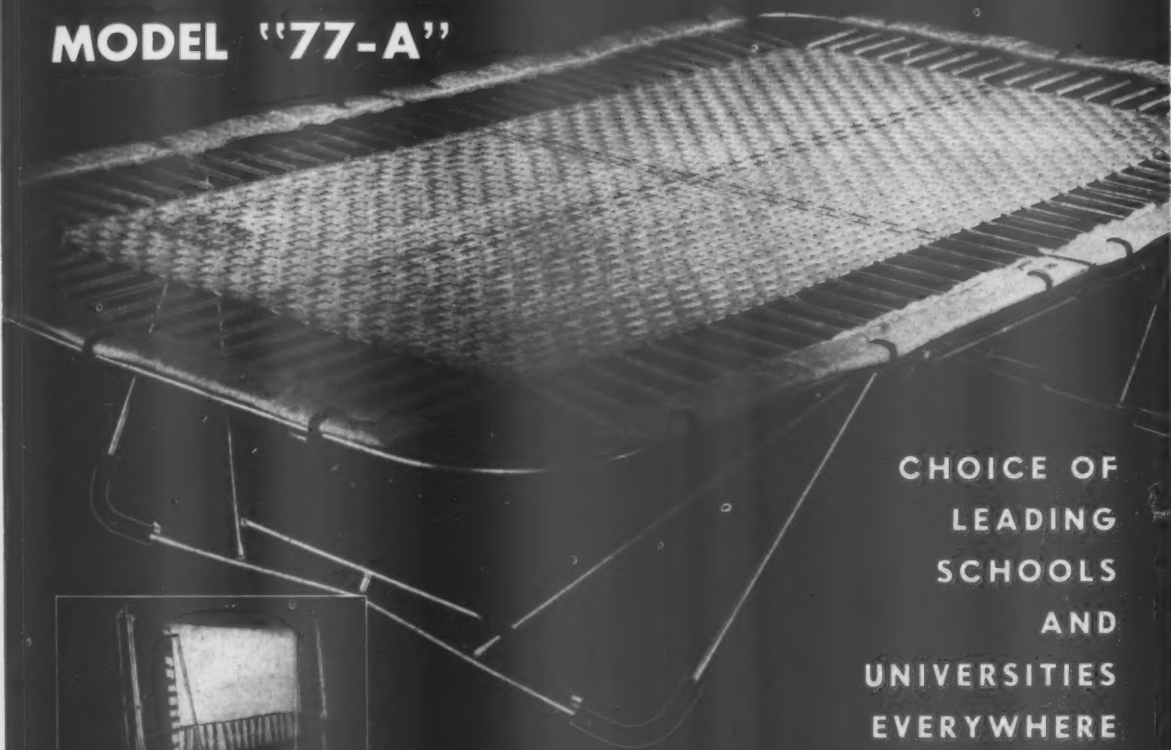




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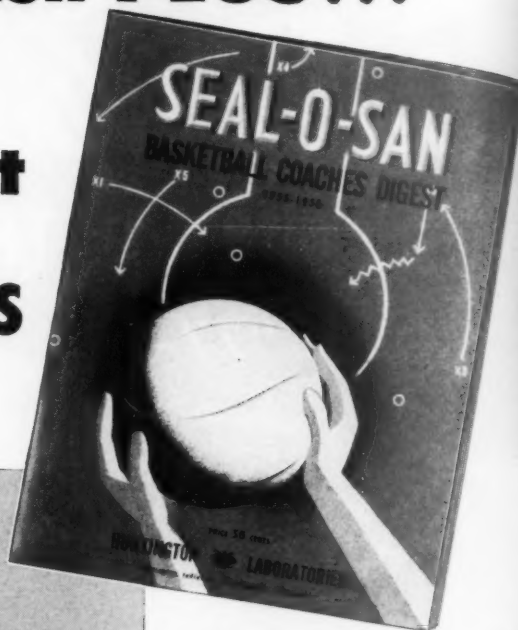
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H. Dutch Usilaner, Physical Education Department, Public Schools of the District of Columbia, Washington, D. C., says, "I'd appreciate receiving your excellent basketball manual containing the best articles of the year. I think it helps our basketball coaches."



These four pictures show in detail the reverse overlapping grip. The hinge method of putting is used. It is well to notice how the player's wrists do the prime breaking. The second illustration shows his hands at the point of impact, and they are in the identical position they were at the time of address before beginning the stroke. In the third illustration his hands have followed through, with the wrists breaking as they follow the ball. The final picture shows the player's hands continuing to break toward the line of the putt. The pictures accompanying this article were taken with the Athletic Journal's high-speed camera by Walter Welsh, track coach at the University of Florida. Bob Garin, captain of the golf team, posed for the pictures.

# Putting Made Easy

By **CONRAD H. REHLING**  
Golf Coach, University of Florida

**P**UTTING is a matter of concentration, relaxation, and confidence. Hence the mental phase of putting is at least as important as the physical phase which is the actual stroking of the ball into the hole. Mental strain is probably responsible for more missed strokes than any other mistake made in the physical mechanics of putting.

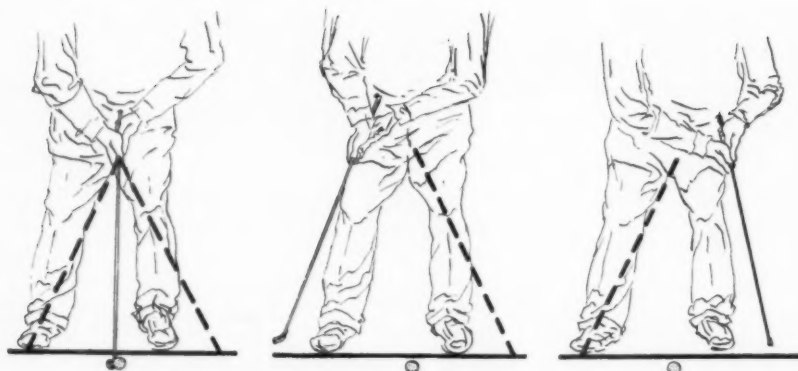
Par, on most courses, allows 36 putting strokes per round, two for each hole. Therefore, it is worth a golfer's while to improve his putting because it is one department of the game in which all golfers can cut

down on the number of strokes by constant effort and practice. Much of the bewilderment about putting is caused by failure to apply some elementary reasoning: "If it works on the long shots, it ought to work on the short ones, or vice versa." One main factor about putting is the fact that the same stroke is used as in any other shot, except that it is done on the most precise scale.

The theories and techniques of putting which have been developed and expounded since the origin of the game of golf would fill many, many volumes. Basically, there are

This series of pictures shows the inside-out line of the putter blade. In the first illustration the putter blade is square to the ball and the line of the putt. As the club is drawn back, the blade comes inside of the ball. This is shown in Illustrations 2 and 3. However, as will be noted in Illustration 4, at the moment of impact the blade of the putter is in the same position as it was at the point of address in the first illustration. In Illustration 5 the putter blade remains low to the ground and is following the line of the putt. The stroke is finished in Illustration 6 and again it should be pointed out that the putter blade is still low to the ground and following the putt.

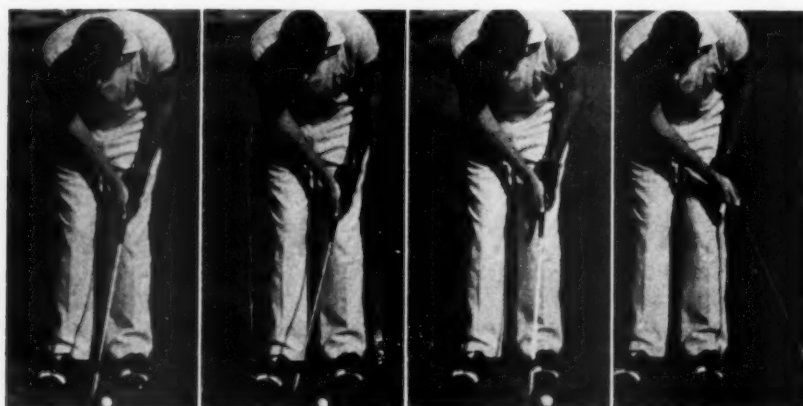




2

3

4



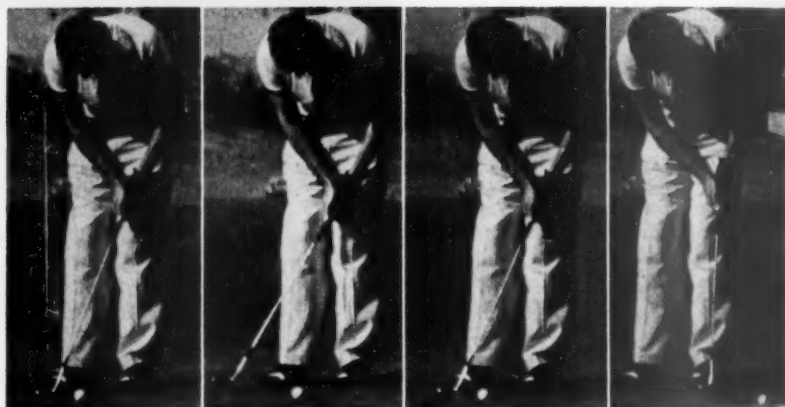
In no other phase of the game of golf can a person develop individual style as in putting. It would be difficult to get agreement on any one style of putting; however, there are some basic principles which hold true for all players who are noted for their success. They are as follows:

**Reverse Overlap Grip.** The reason for using this grip is because it permits all of the fingers of the player's right hand to be on the shaft. Most of the putting a player does is with his right hand. His left hand is under which makes for either a hinge or stiff action of the wrist. This position

The four pictures in this series show the pendulum method of putting. Illustration 1 shows the player's head in position over the ball and his arms in close. In Illustration 2 the putter blade is taken to the inside, with his arms and wrists moving back together. As the club starts to come into the ball, the blade starts to become more squarely in line with the ball (Illustration 3). The player's arms are straight together at the moment of impact. The concluding picture shows the manner in which his arms have done the main work in stroking the ball, with the blade following on the line of the putt. Notice especially the position of the player's head.



This series of pictures illustrates the hinge method of putting. As shown in Illustration 1, the player's wrists are starting to hinge in the initial stage of stroking the ball. Illustration 2 shows that the club is inside of the line, with the wrists breaking more, depending upon the length of the putt. In Illustration 3 the club is coming into the ball and the player's wrists are beginning to hinge both into the line of the ball and the putt. In Illustration 4 notice how the player's hands have come back into almost the same position as at the time of address. The blade is still low to the ground.



only two methods in putting, the pendulum and the hinge. No matter which method is used, putting can be made easy if the golfer has the correct mental approach, and confidence that the ball will go into the cup no matter how great the distance. It does not make too much difference what grip, stance or body position a person takes in putting; the important thing is for him to be comfortable and relaxed. If a player understands what the club head is supposed to do, he will become a better putter. Almost anything goes, for after all there are as many styles of putting as there are putters.



5



6



7





insures that the club head will be square to the line of the ball on the backswing and follow-through.

**Position of the Feet for Good Putting.** One of the important fundamentals in golf is the factor of balance. The basis of balance stems from the position of the player's feet. Good balance makes for good putting. Whether the weight is equally distributed or is more on the left side of the body, the position of the player's feet for the various types of putts is very important. His feet should be at right angles to the cup, with the ball played off his left toe.

**Hip Position for Good Putting.** In putting, as in all golf shots, the player's hips must be in balance at all

This series of pictures shows in detail the action of the player's hands in the hinge method of putting. In Illustration 1 his hands have broken in the initial stage of making the putt. Illustration 2 shows his hands hinged back into position for hitting the ball. Illustration 3 shows that the player's hands have met the ball squarely, and in Illustration 4 his hands and wrists hinge, following into the line of the putt. In the concluding illustration it is well to note the manner in which the player's hands have broken, are following the ball and the line of the putt.

times, and his knees flexed, with his weight evenly balanced on both feet. Flexing the knees naturally lowers the hip position. This action lowers the center of gravity and thus improves balance. Bending the hips is essential

for the proper timing of a golf shot, including the putt; it is also an aid to relaxation for the whole body. There are other factors which determine the player's hip position — the length of the putter, type of blade on the putter, contour for the putt, etc. All of these factors are important; however, the basic requirement is that the player's hips should be in a comfortable position since his hands and arms must be permitted to come into the ball in the most comfortable and efficient manner.

**Shoulder Position for Good Putting.** A player's shoulders should be level as his arms bring the club head into the ball. When using the hinge meth-

(Continued on page 70)

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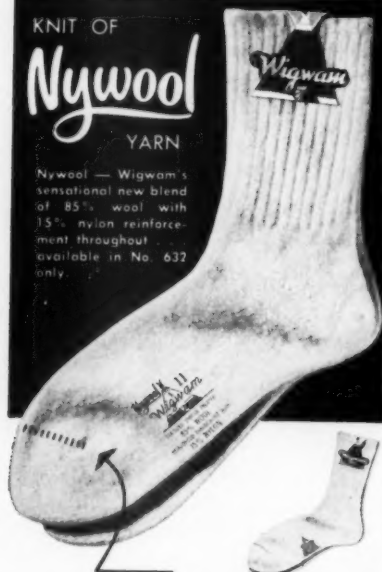
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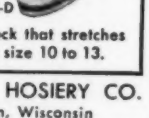
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# COLORS

By **JOHN J. McMAHON**

Director of Athletics, Tappan Zee High School, Piermont, New York

**H**OW many times has a football coach stood on the sideline and wished he had an All-American quarterback on the field of action?

He needs a quarterback who could change his play at the line; one able to take advantage of a defensive weakness quickly and effectively.

High school football has changed greatly in the last fifteen years. No longer can a high school coach hope to see only one or two defenses facing his team.

To add to his troubles, the high school coach must face this situation with a boy who is not blessed with years of experience and know-how. But face it he must, and be ready in three or four weeks for that first game.

An effective offense, even at the high school level, must be flexible enough to meet changing defenses by checking plays at the line of scrimmage. Developing a team of this caliber in a short period of time is indeed a challenge. Because of its simplicity and effectiveness we would like to discuss the background and use of our color system for changing plays at the line.

It has been our experience that high school boys can change signals at the line if they are sure what they are doing, and provided they practice the technique during the week.

During the past seven years we tried many of the common methods for changing a play but none offered complete satisfaction. In talking with other coaches about our difficulty, we discovered that they were running into the same situation.

We used the standard method of adding or subtracting from the play number, hoping that all eleven players could add and subtract correctly and still remember their assignments.

A system of checking, with an alternate play always being called in the huddle, was also used. This method still limits the team a great deal and more often than not the alternate proved to be no better a choice than the initial call.

We tried removing the burden of changing the play from the quarter-

**J**OHAN McMAHON played at Notre Dame, graduating in 1949, whereupon he became backfield coach at Mt. St. Mary's College. He then served in a similar capacity at Bullis Prep. School and Delone Catholic High School before accepting his first head coaching assignment at Tappan Zee.

back by having the tackles call out changes in blocking assignments on the line. This system becomes too complex for the average high school team.

Combinations of the techniques mentioned do not eliminate the confusion.

In order to give our offense the advantage of changing a play at the line, we used a system of *dummy* and *real* signals similar to those we used for the baseball team. However, in this case we used colors instead of arm and leg movements. All this started two years ago and after two full seasons of use it is our feeling that we have obtained our goal of simplicity and effectiveness. The procedure is as follows:

1. In the huddle every play is given a color. For example *Red 42 on 2* might be the quarterback's call.

2. Up on the line the quarterback may wish to change the play. To make the change he merely calls out any color but the one called in the huddle. Then he waits a second and calls a play right at the line. Naturally, the snap signal remains constant.

3. If the quarterback feels that the defense is catching on to his signals, he merely uses a *dummy* call by calling out the same color that was given in the huddle. As soon as his teammates hear a color that matches the huddle color, they disregard any play that is subsequently mentioned. This dummy call is used a few times in each game to keep the defense honest.

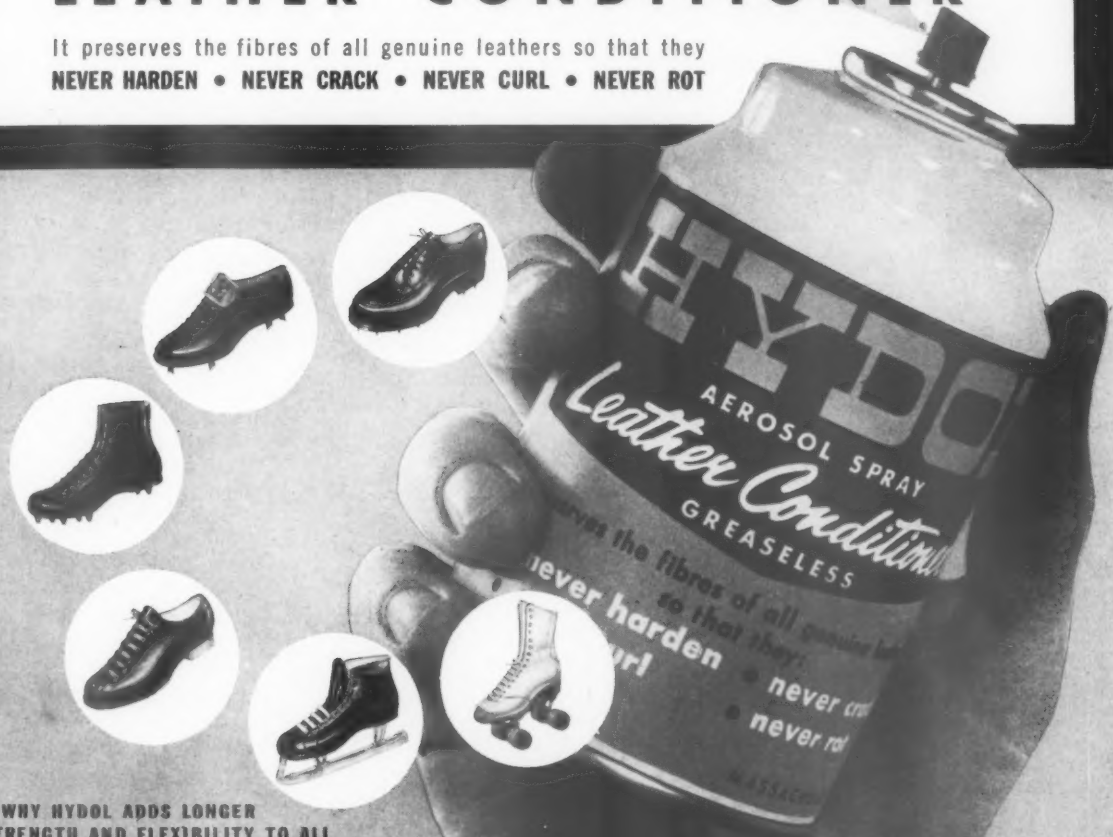
4. The rule to follow for easy learning is as follows: a. Color same, play the same. b. Color change, play change.

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# Taping an Injured Knee

By ROBERT BOLES and ED DISSINGER  
Manhattan Senior High School, Manhattan, Kansas



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 1



Fig. 6



Fig. 7



Fig. 8



Fig. 9



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Ordinary tape lacks the stretch and elasticity which allows the knee to bend and still exert sufficient pull to hold it in place. Elastic tape, such as is now available from several sources, also is limited as to how far it will stretch, and in the pull exerted. How-

(Continued on page 76)

**E**D DISSINGER graduated from Baker University in 1936 and coached at Atwood, Oberlin, and Holton high schools in Kansas before coming to Manhattan in 1952 as head football, basketball, and track coach. His football team was ranked second in the state last season.

**B**OB BOLES is a 1939 graduate of Southwestern College and coached at Viola, Kansas for two years before coming to Manhattan. During his army service he served on the coaching staff of the 70th Division overseas. He assists in football and basketball, and is head tennis coach.



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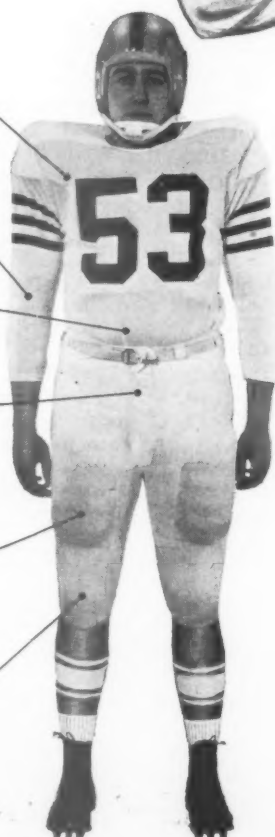
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**A**T the present time the game of tennis is suffering from a net-rushing neurosis that has put a premium on the less important equipment of the game — the serve and the volley — and completely sidetracked the most important — the ground strokes. Of course, this statement is sheer heresy today, but proof of the pudding would be a run-down of some of the great players of the past — Lacoste, Cochet, Perry, and Johnston — they all had average serves. And just how often did Tilden use his *cannonball*? Only when he needed it badly. How frequently did Budge follow his service to the net? Rarely, indeed. He used his serve to draw a weak reply and then handled the matter from that point with his ground strokes.

By **JIM LEIGHTON, Jr.**

*Tennis Coach, Presbyterian College*

Unfortunately, because of this current obsession with the serve and the net, tennis players are no longer brought along slowly, soundly in a natural sequence of development, but are sent helter-skelter at too early a stage, either a young age or at an advanced age with poor equipment, to the net. Consequently, they spend much of their time playing defensively in the most offensive area of the game. Because of poor ground strokes, they are unable to pave their way to the net soundly.

And, of course, it follows that because of inadequate equipment in this department, they cannot play defensive tennis. When they are attacked they are lost. Tennis is every bit a defensive game as well as an offensive one, and many authorities consider the defensive game the most important of the two. Certainly it is the one that a tennis player should develop first.

In this article we will discuss only the ground strokes, the forehand and backhand, not just one way to hit these strokes, but the many variations and styles that are possible on both sides. We will also point out what we believe are the essentials in both shots. Comments will be made on some of the controversial points and we will try to show what can be considered standard with respect to many variations and styles.

In teaching the ground strokes it is important to differentiate between the style factors and the fundamentals or essentials. This is particularly true in connection with high school and college teaching, where style is so often already set. When the coach

realizes what he can allow and what should be eliminated, he will be able to cut down on the number of changes and simplify his job. It is hoped that this article will be of help in this direction.

At the outset, let us say that this instruction is for right-handed players and involves only standard baseline shots. We will divide the article into eight sections for easy reference as follows: 1. Eye and relaxation. 2. Grips. 3. Backswing. 4. Footwork. 5.

Forward swing. 6. Wrist. 7. Hitting area. 8. Ending the stroke

### Eye and Relaxation

It goes almost without saying that the players must watch the ball and they should watch it from racket to racket. When hitting, the player's head should be down, following the ball into the racket, with an attempt to see it hit the racket. Very possibly coaches do not stress watching the ball sufficiently. It is an absolute essential.

Relaxation is very important and it is particularly necessary that the swinging parts of the body — the hand, arm, and shoulder, be relaxed. With too much tension, the racket has a *boardy* effect in the hitting area and it is impossible for a player to get any feeling for the ball. Relaxing the tense type of player can be a discouraging thing for the coach and the student, but it will pay off in the end.

### Grips

It is probably wise for a coach never to change a grip unless it is absolutely necessary, and it should be understood that both he and his player may be in for a rough time when such a change is made. Of course, Eastern grips have become a standard recommendation on the ground strokes, but how much can we quibble about the Continental

when that grip has been used by such players as Perry, Sedgman, Van Horn, Hartwig, and Rosewall? Recently there have been some good forehands which have tended toward the Western. Gardner Mulloy is one example.

The Continental may mean some loss of power and some difficulty on high balls and close ones, and the Western may mean some trouble on low balls, but there is only so much that can be done with low and high balls, and the difficulties can be sur-

mounted. For instance, when the Continental grip is used more weight into the shot, a faster swing, and more shoulder action can compensate in a large part for the loss of pace the grip may cause.

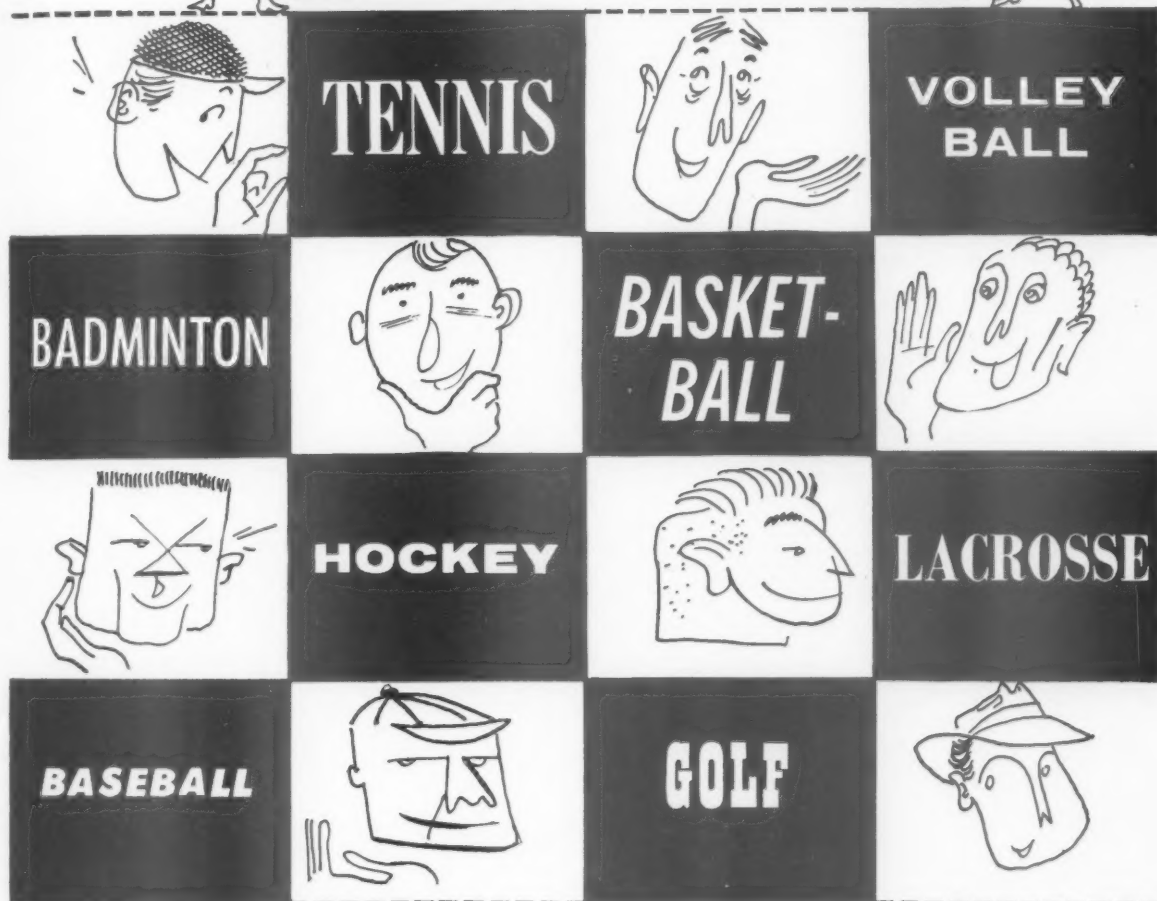
The coach should go easy on changing grips. A high school or college player has been using his particular grips for a long time and nothing will upset him more than a change in this department. Unless the coach is certain that it is necessary in a particular case, a change in grips should not be made.

Whatever grip is working out the best for the player is the best one for him. When working on new grips, it is important to keep in mind that the racket should be part of the hand; in other words, an extension of the arm.

### The Backswing

There is certainly no one correct way to swing the racket back; either circular or straight back is satisfactory. There is a slight tendency to teach circular on the forehand and straight back on the backhand, which is perfectly all right. Actually, both types of swings could be important to a player. If he uses the circular naturally, and is having difficulty on the return of service, the coach might help him by suggesting that he go straight back for this particular shot.

# Essentials and Variations in the Ground Strokes



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Very stiff players who go straight back can sometimes be helped with a slightly circular swing, and sometimes players who have unnecessary wrinkles or turns of the racket in the circular swing can be helped by taking the racket straight back, keeping it flat or perpendicular to the playing surface all the way. Swinging too high on the circular swing should be checked as should going down too much on the straight swing.

Of course, in either swing the same point (in relation to the ball) is reached at the end of the backswing. Possibly the only thing that can be said for the circular swing is that it is more rhythmic and lends itself to a continuous motion more readily than the straight backswing. But either swing can be used as a continuous motion swing, although it is probably best to use the straight method of getting the racket back when working on a pause at the end of the backswing.

In the backswing the racket can be taken back closed, open or flat. Closed, of course, means the top edge of the racket head is tilted forward; open, the top edge would be tilted back; flat, the two edges, top and bottom of the racket head, would form a perpendicular with the playing surface. We might add that it has rarely been taken back closed on the backhand.

The distance the racket should be swung back can vary, too, and should depend on the player. On the forehand, we might describe standard this way — let us say that at the end of the backswing the player's shoulders will be approximately perpendicular to the net. Then the racket head should be in line with his shoulders. On the backhand swing the racket head would be just behind the player's left hip. The important thing here is that a shorter or longer hold is permissible on both sides and is dependent on the player. For accuracy and consistency he should tend toward a shorter backswing rather than a longer one.

Either stroke can be worked out with the elbow broken or with the arm straight at the end of the backswing, although a slight break in the elbow on both sides is probably preferable.

The backswing can end at a height that matches the point of contact, above it or below it. If above, the racket must come down to match the point of contact or be below it. Standard is probably below the point of contact so that the swing will be definitely upward.

Certainly all of the material given

under this category comes under the heading of style. The main suggestion is the simpler the style, the better. However, there is one important essential, and along with watching the ball and being relaxed, it could be termed one of the three most important things in hitting the ground strokes. It is — taking the racket back early — and it cannot be stressed too much. Its importance increases the more a player is pushed, so the coach should be certain that his players run with the racket back or on the way back.

### Footwork

Players should be encouraged toward flexibility in this department. They should be able to hit from both sides in any position — off either foot, but there is probably a standard pattern. On the forehand stroke, it is reasonable to say that the player's feet should line up in the direction he is going to hit the ball. This alignment of the feet would mean a slightly open stance on the cross-court shots.

On the backhand, the player's right foot should usually be well across his left toward the sideline, whether hitting cross-court or down the line. The open stance is used more frequently and effectively on the forehand than is realized, whereas the closed stance is practically a must on the backhand.

The essentials are: 1. A balanced base. 2. A proper distance from the ball (comfortable arm's length) which will allow a natural flow of weight into the shot.

### Forward Swing

As previously stated, at the end of the backswing the racket head can be above the point of contact, or in line with it (matching the ball), or below it. If it is above, the swing would be of a pendulum type and would reach a point just before contact on line with or below the ball. Actually, it is possible to say that the plane of the forward swing would vary in accordance with the height of the ball.

It is probably best to talk in terms of being slightly below the ball and as the stroke grows, to tend toward suggesting matching the point of contact. This *below the ball, matching the ball* point is a controversial issue, but it is perfectly sound to think of the ground strokes either way. Of course, when *matching the ball* is used, it is taken for granted that the racket head will start upward at the

point of contact, but in using either method, the player is on the right track. The difference is mainly a matter of spin. Of course, the ideal situation is for a player to be able to hit down into his opponent. That is, he should be getting short balls that bounce just above the net.

One of the essentials is the *inside out swing*. It can be described as swinging the racket head from inside the ball (in relation to the player's body) toward the outside. It can also be described through the elbow this way — the elbow goes from relatively close to the body to farther away as the racket swings in. Possibly it is more important in the case of the forehand than it is on the backhand. Another essential is that the forward swing be a swing and not a push or pull. It is a matter of exerting energy at a certain point and only a swing will do that correctly.

### Wrist

Action of the wrist has always been a controversial point on the forehand and backhand strokes. It is probably very simple. If a player uses his wrist well, then let him use it. If he uses it poorly, then the coach should tend toward cutting it down. There have been good forehands and backhands which involve no use of the wrist, and good ones with it. The danger in the wrist is twofold: 1. A tendency toward sloppiness must be watched. 2. Since it is another moving part, it might cause some inaccuracy. The essential point is that the player is using his racket head to hit the ball. If he is pushing in too much with his wrist, and then snapping it to get his head in, this fault must be corrected. If he is too *wristy* from the start of the forward swing, causing the racket head to get in too fast, this fault must also be smoothed out.

It might be helpful to point out that a large amount of wrist action can be more successful in the forehand than on the backhand.

The essential thing to remember is that the racket should be considered an extension of the player's arm and should be definitely an extension of his arm at the point of contact with the ball. If it is, whether or not the wrist is used is not too important.

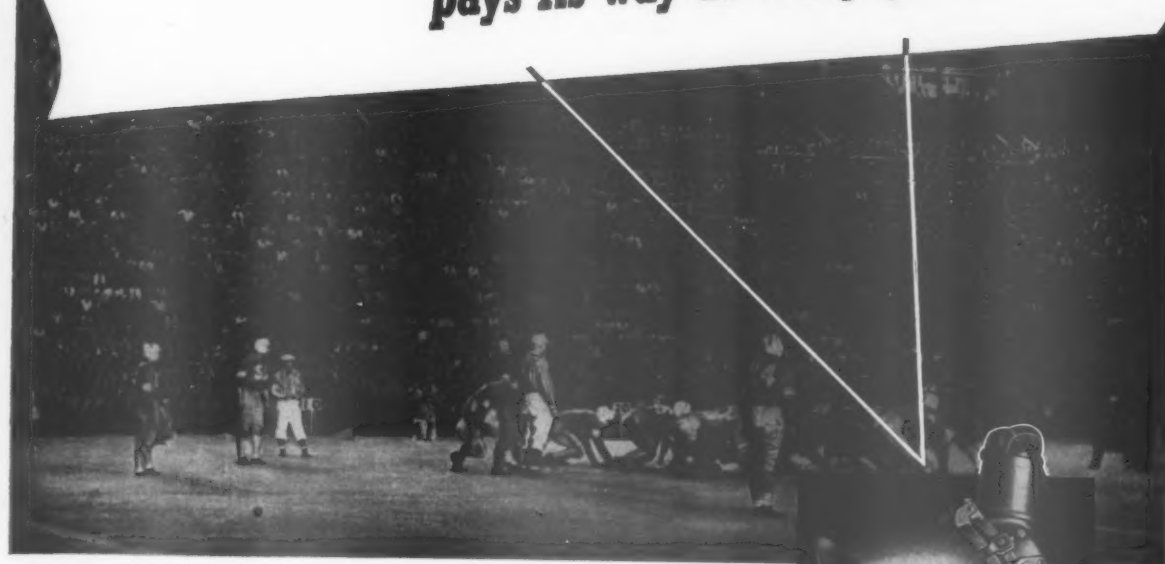
### Hitting Area

The hitting area is the most important part of the stroke. It consists of the racket lining up behind the ball, the point of contact, and the follow-through. We will define the follow-

(Continued on page 66)



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# Defensing Run-Downs

By JAMES B. MALLORY

Baseball Coach, East Carolina College

EVERY baseball team must have a planned defense to be used against offensive players who are caught in a *pickle*. There are many plans, all of which have merit, and the defense we use is by no means all-inclusive. It is sound and based on approved fundamental principles of defensive baseball.

We use the rotation or shuttle system when an opponent gets in a *pickle*. The fundamental rule of this type of defense is *always follow your throw*. This rule is indispensable and must be adhered to if the defensive team is to be sure it has a player to cover each base.

Let us start with a player being off first, and continue with a similar situation at second and third bases. We will assume that the pitcher picks the runner off first base. As soon as he throws the ball and sees that the runner is caught off the base, he hurries over to back up the play. When he sees the play develop, the second baseman goes to first base immediately. The first baseman runs the base-runner toward second. He does this in order to give the shortstop a chance to get into position at second. Then he throws the ball and follows his throw. The shortstop takes the throw and immediately runs the runner back toward first as hard as he can go. Then he throws the ball to the second baseman, who is covering first base, and the second baseman is able to tag the runner out before he can turn around and start toward second again. The shortstop runs the runner back hard. As he runs the runner back toward first, he can help himself by faking as if he were throwing the ball. In this fake, he should swing his arm fully, as in throwing, and in the follow-through. This maneuver often causes the runner to stop, and he is easily tagged out.

If this plan is carried through successfully, there will be only two throws. If it does not seem practical, there are two other plans which may

be used. The coach can have the pitcher back up first base, and the second baseman cover second. This plan is all right except that the pitcher must then take part in the action. The second plan would be the same, except when the first baseman throws to the second baseman he would not follow his throw. This procedure is not good because if the first baseman does not follow his first throw, he is likely to forget to follow any subsequent throws.

Suppose we have picked the runner off second. The shortstop or second baseman, whoever takes the throw, runs the runner a few steps toward third and then throws the ball to the third baseman. He *follows* his throw. Then the third baseman runs the base-runner back toward second. He runs him hard and throws the ball to the shortstop or second baseman (whichever is left) and they tag the runner out. We have the pitcher cover home and the catcher back up third. Unless it is absolutely necessary we do not want our pitcher to take part in a run-down. There is a possibility that he will be stepped on, or knocked down, and for this reason we want him out of the way.

Now, suppose the base-runner is caught off third. If the batter hits the ball to the pitcher and the runner is caught halfway, then the pitcher should run directly toward the runner and make him commit himself, preferably in the direction of third. Then it is easy to throw him out. The first baseman backs up the catcher at home plate and the shortstop backs up the play at third base. As soon as the pitcher throws, either to third or home, he backs up that base.

If the pitcher picks the runner off third, he backs up that base; if he throws to home, he backs up the catcher. In other words, the pitcher goes to the base where he makes the first throw, except in the case of a second base pick-off. He will not be needed if the other players follow the basic rule which is: *Always follow*

JIM MALLORY graduated from North Carolina and played eight seasons of professional ball, including one with the New York Giants. He was forced to retire from baseball due to ill health. In North State Conference competition his teams have won four championships in seven years. Three of these were while he was at Elon College and one while at his present location. His overall record is an amazing 91 games won against only 19 lost.

*your throw*. If they fail to follow the throw, then it often becomes necessary for the pitcher to take part in the run-down.

There is only one other situation where a run-down will occur. Suppose there is a man on first and third, and just as the pitcher takes his stretch the man on first breaks for second. The play would then be defended in this manner. The pitcher must step back off the rubber with his right foot. This is an absolute must as it eliminates any chance of a balk. Then he wheels toward second and bluffs a throw. He turns toward his glove side. This bluff throw is enough to force the runner who is going to second to hold up. The pitcher then wheels toward third and if the runner is off the base, picks him off. If he has broken for home, the pitcher throws to the catcher.

Now, if the runner on third is still close to the base, the pitcher throws the ball to the second baseman and backs up first. The second baseman runs the runner back hard toward first. In the meantime, the first baseman has trailed the runner toward second. As soon as the runner gets close to the first baseman, the second baseman throws to him and he can tag the runner out quickly before the runner on third is able to score. With a pull left-handed hitter, the pitcher would throw to the shortstop, who would be covering second. In this instance the second baseman would back up the play at second, and the pitcher would still cover first.

The important thing to remember in all run-downs is to throw the ball no more than twice, and to run the runner back to the lesser base. Run him hard. By following the throw and shuttling back and forth, there will always be a man in position to cover each base.

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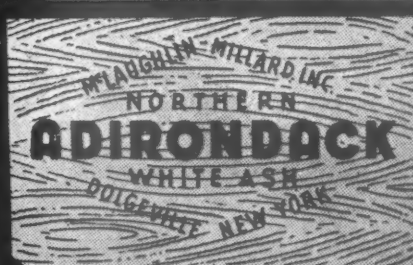
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*Joe Judge*

*Willie Mays*

*Del Crandall*



# Running the Bases

By MICHAEL RAUSEO

Baseball Coach, Cape Charles, Virginia, High School

SOMETIME ago we heard a manager remark, "If we could steal first base, we might win some ball games." A book could be written in behalf of that statement. Among other things it implies that there are capable runners on the team and if the batters were more successful, proper base-running would go a long way towards winning a game. Despite the tremendous importance of base-running it is a sad fact that few high school and college coaches take the trouble to teach this basic fundamental of baseball. While it is not the most glamorous aspect of the national pastime, base-running is a most important phase.

Despite the statement found in the rule books, that a player cannot steal first base, it has been done many times. Leo Durocher, present manager of the New York Giants, used every trick imaginable to get a base on balls. More recently we have seen Eddie Stanky, when playing with the Brooklyn Dodgers, employ every means possible to get on base. Both of these players would crouch low at the plate, making themselves a difficult target for the pitcher, or perhaps make unnecessary movements to distract the pitcher's attention. An-

other method they used to steal first base was to pull out the shirts of their uniforms so they presented a considerably larger belt line. The list of these artful and crafty maneuvers is long and varied and no one can deny they helped win many ball games. And so it is that although first base was not stolen, as is generally

MICHAEL RAUSEO graduated from Elon College and then spent six years playing minor league ball, being in both the Red Sox and Pirate chain systems. A year ago he prepared an article for us entitled, "Hitting in High School Baseball." In addition to baseball, Rauseo handles the other major sports at Cape Charles High School.

accepted, the means by which Durocher and Stanky on these occasions reached the initial sack were its equivalent.

Since the advent of Babe Ruth, base-running has played a relatively minor part in a manager's strategy. The long-ball hitter has proven to be a tremendous drawing attraction, and the popularity of this type of baseball is overwhelming.

However, in high school baseball we have an entirely different situation. Assuming that the high school hitter is physiologically able to hit the long ball, he has not yet acquired the skill and technique of being consistent. As a result, the high school coach must revert to the strategy of yesteryear in high school play.

Good base-runners do not have to be fast on their feet, although speed is always a great asset. A good base-runner knows the situation, he knows the score, the count on the batter, the outs in the inning, the strong and weak throwing arms of the opposing fielders, and he has an instinct for taking a chance.

In this article we are not concerned so much with the many play situations, but rather with the technique

(Continued on page 61)



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Relay, 800-Yard One-Mile Relay, Two-  
Mile Relay, Sprint and Distance Medley

Relay, 100-Yard High Hurdles,  
High Jump, Football Throw, Dis-  
tance Relay, Put.

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## The Huddle—Is It Old-Fashioned?

(Continued from page 22)

sage to the players without telegraphing our intent to the opponent.

Any coach can develop a system of play calling which will accomplish these objectives. We will attempt to describe our system. It is a simple system, but it does limit our offense to some extent. Seldom have we had trouble with our boys *getting* the message. Only once did we suspect that the opponents were getting the drift of our method, and then we changed it.

Assume that we are operating from a basic split T formation with an occasional shift to the short punt to keep the defense guessing. The offensive holes are numbered from 1 through 9 starting on the right flank. For example, we might call our running plays from the basic formation which is our 100 series. At this point the system encounters limitations, for we can have only nine running plays from the split T, one play for each hole. If the quarterback notices that

only one man is playing outside our left end in the scrimmage area, he will direct a play from the split T at the 9 hole. Then the play is called 190. One means split T formation and 9 means the play is to be run at the nine spot. If the ball is to be snapped on the three count, the play will be called 193.

Of course, the quarterback could not simply say, 193, and expect to fool the defense very often. He is instructed to call out three sets of digits. During one quarter we may listen for the first set only. In the next quarter the third set might be the key. By switching continually, the defense cannot jump to conclusions.

Suppose we have decided to listen to the second set of digits. Our quarterback gets set under the center and calls 348-162-253. Then the play is 162. A basic split T formation play is run over our left guard, and the ball is snapped on the count of 2. The other numbers mean nothing.

The split T pass patterns will be our 200 series. We can have as many as ten split T pass patterns. If our quarterback should call (again we are listening for the second set of digits only) 142-211-525, it would mean that we would throw split T pass pattern No. 1 on the count of 1.

Our short punt formation running plays could be called the 300 series, and the short punt pass plays could be the 400 series. The shift from the split T to the short punt formation could be made on a pre-determined key number.

What do we do when the defense starts shifting on us after our signals have been called? We have a cure-all number which means *center the ball immediately*. Automatics are run from this setup. If we should catch the defense on the move a couple of times, we feel that they will be cured of this habit.

We certainly do not believe this system is foolproof and realize that most of the successful teams in the country still huddle. But we have been able to realize some of the advantages listed, and as long as we

(Continued on page 73)

## B-H Sportsman HINGED KNEE BRACE

AVOID  
INJURIES

### Ideal Aids for Prevention of Dislocation

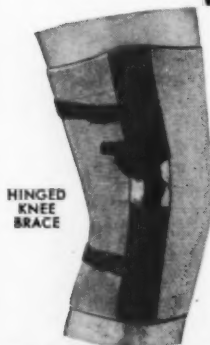
Heavy, metal-hinged brace on both sides, permitting free knee-action.

### ANKLETS\* and KNEE CAPS\*

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- ★ For all sprains, strains and swollen limbs.

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to Roll!



- Fast growing acceptance of rubber-covered footballs and basketballs by coaches and players alike has led to two important rules changes.

- For Pennsylvania it is the successful result of a long period of testing under actual game conditions.

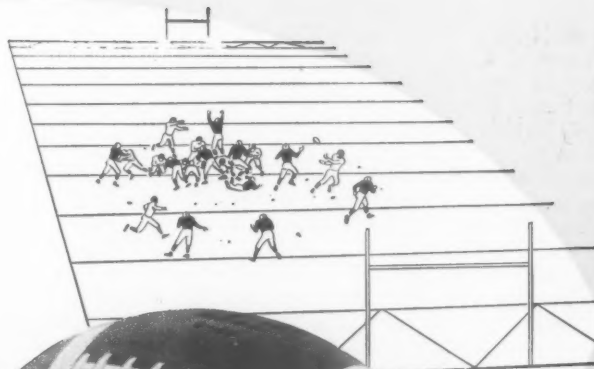
- Rules change provides for Pennbilt basketballs and footballs to be official for varsity play starting with the 1956 season.

1. Basketball \*(Rule 1-12) Beginning with the 1956-1957 season, a ball having a cover other than leather but meeting all other specifications is legal for any high school or Y.M.C.A. game.

\*Official basketball rules of the National Basketball Committee of the U. S. and Canada.

2. Football \*\*(Rule 1-3-1) By agreement of both teams or by conference adoption or by election of either team while on offense, a properly constructed rubber-covered football (such as PF-6) may be used in varsity play.

\*\*Official football rules of N. C. A. A. and National Federation of State High School Athletic Association.



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*"Preferred for Performance"*

# Planning the Lacrosse Practice

**A**T Hofstra College lacrosse has become the most popular sport in our spring program, both from the point of view of interest and from the number of players who participate. Each spring we are faced with the problem of teaching approximately forty boys, who have had no previous experience, how to play the game. Therefore, it has been necessary for us to inaugurate a planned practice program for beginners. This practice program is started two weeks prior to the official opening of the lacrosse practice sessions.

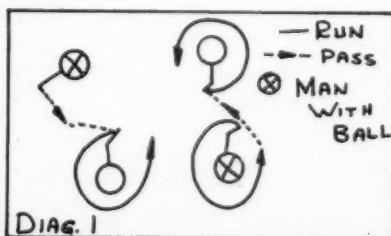
In planning the program it is our aim to teach the four most important fundamentals of lacrosse; namely, picking up a loose ball, cradling the ball, catching the ball, and throwing the ball. In all of the drills, even with beginners, it is necessary to simulate game conditions as nearly as possible. However, it is essential that this two-week period be spent only on these four fundamentals, and an important factor such as conditioning be left until such time as the entire squad is ready to practice together.

Before a beginner is permitted to go on to the practice field two 45-minute meetings are held. At the first of these meetings we try to determine which position would best suit the candidate, and then each boy is issued a stick and a pair of gloves. An inexperienced player should never be given a new stick or new gloves since it is much easier for him to learn with equipment that has been broken in

well. At the end of the first meeting each candidate is told how to keep his stick in good condition. During the second meeting the four important fundamentals are covered and the manner in which each fundamental should be executed is stressed.

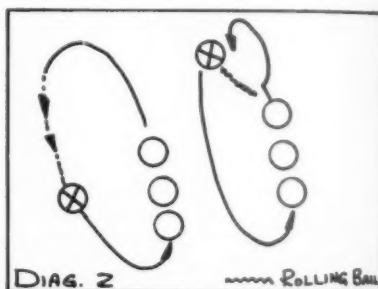
Following these two meetings we are ready to begin two weeks of basic training, comprising an hour and fifteen minutes a day. Our squad is divided into groups of four and each group is designated by a color, rather than by number or letter, so that no group will feel inferior to another. The names of the members of these groups are posted on the bulletin board along with the practice schedule for each day. It is important to prepare and post this practice schedule every day so that the candidates can see the drills, the time being spent on each, and know the drill by name as it is called. Thus time is saved and explanation on the practice field is cut to a minimum. The program for our first day's practice session is as follows:

## 1) Catch and throw in pairs — 15



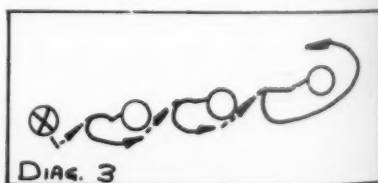
minutes. Diagram 1 shows a drill in which the two players are approximately 15 yards apart. As one player is set to throw, the other breaks in toward the passer and then out to his stick side. When he catches the ball he circles away from his stick side, makes a fairly wide circle, and gets set to pass the ball back to his partner, who carries out the maneuvers just described. This drill teaches the fundamentals of catching, throwing, breaking in to meet a ball, and turning the right way, away from the stick side.

2) Scooping, Away — 10 minutes. Toward — 5 minutes. In this drill (Diagram 2) the squad is divided into groups of four. The player who has the ball rolls it out along the ground. Then the first man in the line scoops the ball, sprints 10 yards, turns the right way, and throws the ball back to the roller. The first man runs back to take the roller's spot. Then the roller moves to the end of the line. After ten minutes of this drill the man who has the ball starts the next drill which is rolling the ball toward the first man in the line. This man scoops the



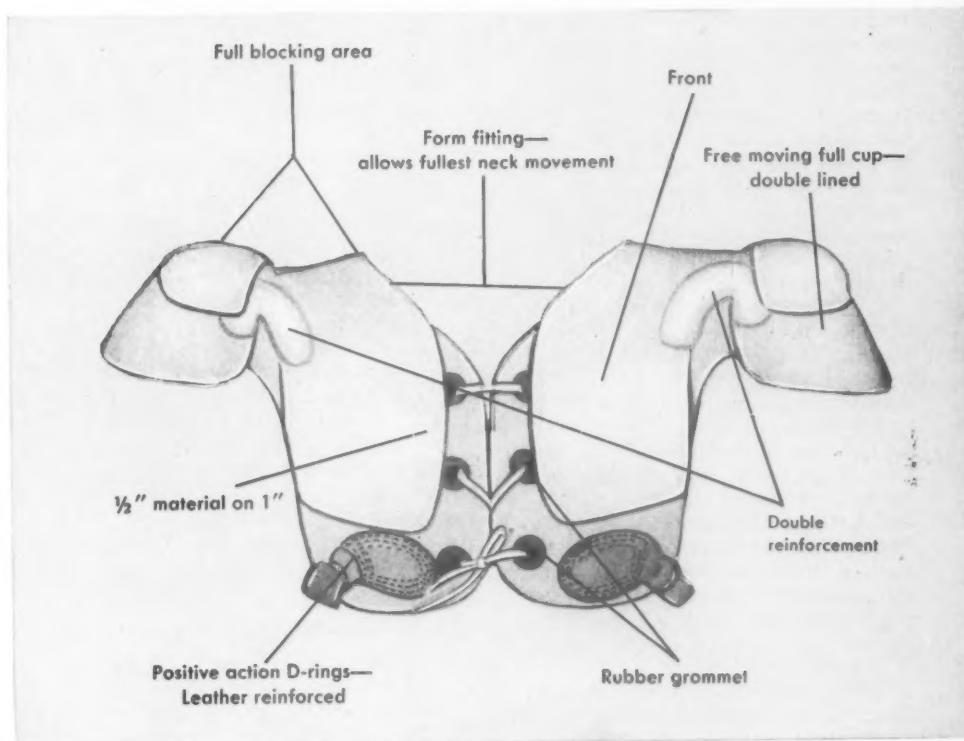
ball, sprints 10 yards, makes his same turn, and rolls the ball along the ground to the next man in the line. Then he runs to take his place at the end of the line. This drill teaches the fundamentals of picking up a loose ball, either going away from the man or coming toward him, stresses the fundamental of running hard to get away from an opponent as a player picks up a loose ball, and again teaches him to turn the right way.

3) Catch, circle, and throw — 15 minutes. Diagram 3 shows the group of four players in a straight line about 15 to 20 yards apart. As the first man



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### SHOULDER PAD

Form-Fit Polvomite, PEC-10 Coated, all-purpose pad . . . treated to stay soft and pliable at lower temperatures . . . tough, rugged material that will withstand most abusive use . . . large blocking area . . . completely waterproof . . . new high in sanitation . . . years ahead in protection and movability . . . matchless.

*Only Polvomite Football Pads offer  
all these PLUS advantages*

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#### • MORE SANITARY

- LIGHTER WEIGHT

#### • GREATER MOVABILITY

- LONGER WEARING



THIGH GUARD

Covered both sides; lightweight, waterproof, sanitary, stingproof; fits game, practice pants.



HIP PAD

Comes with half- or full-web belt with D-ring fasteners; waterproof, maximum movability.



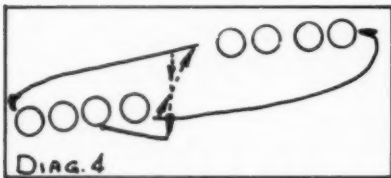
KNEE PAD

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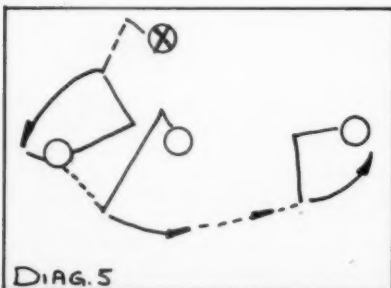
257 MARKET ST., SUNBURY, PENNA.



in the line is ready to pass, the second man breaks toward him and then out to his stick side, catches the ball, circles the right way, and prepares to throw to the next man in line. The ball moves down to the end of the line, and then back again. This drill stresses the same factors which we were stressing in the first drill while simulating the type of passes which might be used in clearing a ball from the defense to the offense.

4) Weave - 15 minutes. As shown in Diagram 4, two groups are combined into one. In other words, there are eight men in the drill. The two lines are approximately 20 yards apart and 5 yards in between. The first man in the line throws to the first man in the other line, and then proceeds to the end of the other line. As the man makes the catch, he will then throw to the next man who is breaking out from the initial line. The man does not break out until the ball has been caught. Short, accurate passing and quick stick work are stressed in this drill.

5) Ball around the circle - 15 minutes. Diagram 5 shows the four players situated around the circle, approximately 15 yards apart. As the man with the ball is about to throw, the next man around the circle breaks a few steps in toward the center and then back to the outside and toward the passer. The passer tries to throw the ball on the outside of the man who is breaking. He catches the ball, turns the right way, and prepares to pass to the next man around the circle. The ball continues to move around the circle in this manner. A very important fundamental of moving the ball around the goal from one position to another, and an important

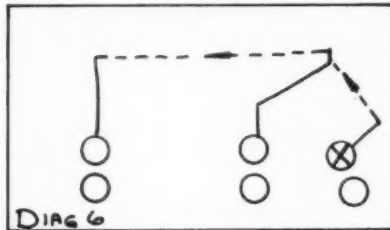


maneuver in clearing the ball are taught in this drill.

For the second day's practice the time allotted to each drill is cut down and a few new drills are added. Therefore, our second day's practice schedule would be as follows:

- 1) Catch and Throw, in pairs - 10 minutes.
- 2) Scooping: Away - 10 minutes - Toward - 5 minutes - 15 minutes.
- 3) Catch, Circle, and Throw - 10 minutes.
- 4) Ball Around the Circle - 10 minutes.
- 5) Weave - 5 minutes.
- 6) Break-Out Drill (Midfield and Defense Groups) - Attack Set-Up (Attack Men) - 10 minutes.
- 7) Flip Drill (Attack and Midfield) - Triangle (Defense) - 10 minutes.

On the break-out drill (Diagram 6) two groups combine, and there are three lines approximately 15 yards apart. The man in the far right line has the ball. As he runs parallel to his right, the man in the middle line breaks straight up the field for approximately 15 yards then off to his right at about a 40° angle. As he breaks off at this angle, the man who has the ball passes it to him. When



this pass is executed, the man from the third line breaks straight down the field. After catching the ball, the middle man will turn the right way and throw across the field to the man from the third line. On returning, each man will rotate to the next line. This drill stresses stick work and the movements used in clearing.

The attack set-up drill is shown in Diagram 7. One of the group of four players has the ball in the position of a midfielder in front of the goal. Player No. 2 breaks off player No. 1, receives the pass, turns the right way, and prepares to pass. Player No. 1 moves to the other side of the goal, sets up a pick for player No. 3 who breaks back and receives a pass from No. 2, turns the right way, and throws a pass to No. 1 over the top of the goal for a shot. Then the players rotate their positions and repeat the drill. Actual movements used under game conditions by the attack are shown in this drill.

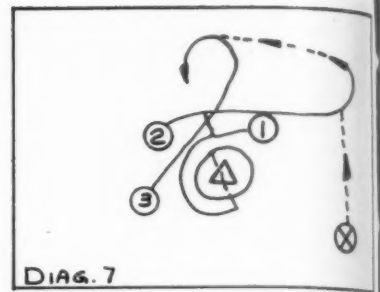


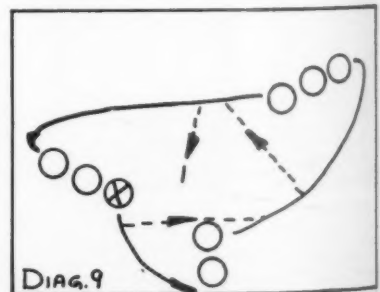
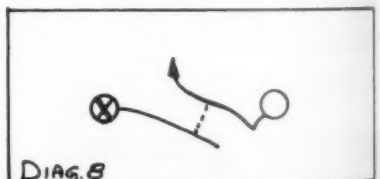
Diagram 8 shows the flip drill in which the players are divided into groups of four. The man on the left rolls and carries his stick on his left hip. The man on the right fakes in a couple of steps and then breaks toward his partner. As they approach, the man who has the ball flips it with an underhand motion to his teammate. The next two men work the same maneuver. This drill stresses the simple maneuver of getting a man open either for a shot or a pass.

The triangle drill in which two groups are combined is shown in Diagram 9. There are three lines of players approximately 20 yards apart. When the player in the first line is prepared to throw, the player from the second line breaks out. As he catches the ball, the player from the third line breaks out to receive the pass. After passing, each player rotates to the next line. Accurate passing and stick work by the defensive man are stressed in this drill.

This program is continued for the remaining days of our two-week period. The time devoted to each drill is varied slightly from day to day, depending upon which phase of the squad's stick work seems to need the most attention.

On rainy days we try to use the

(Continued on page 69)





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Injuries can rob your team  
of important victories.  
Guard against this  
through a program of

# Football Conditioning

By PAUL E. MASSEY

If a coach has the players, how can he lose? No doubt, most coaches have at some time expressed this old axiom. It has been our experience that this idea is not true. A coach may have the players, but if they are not in top physical shape they will not last out the season. Any boy can have the desire to play, but what good is he if he is on the injured list? As coaches, it is not only our desire to win with humility, but we have an obligation to the players. This obligation is to have all of the players in perfect physical condition.

Let us look at the case of Bob. Bob was on the football team. It was only his junior year, and he was an excellent 185-pound, 10-second half-back. As a sophomore Bob was selected for the third team of the all-state team. Bob's coach was sure his senior year would be his year. He would run, pass, and kick the opponents to pieces. Well, the team won the first game but only because the players outsmarted the opponent. After the victory the coach felt very confident. The following Saturday he received a rude awakening. Bob was hurt in the first quarter, a strain to the gastrocnemius muscle.

Instead of concentrating on getting his boys into shape, the coach had spent most of his time teaching those trick plays. He felt physical conditioning was not as important as teaching trick plays or all the extra ones that he would probably never use anyway. Fortunately, the team managed to win the second game without Bob. However, during the succeeding week Bob's injury was also diagnosed as a strain to the collateral lateral ligaments of the knee. This meant that he would not be able to play for six weeks. What did the coach do? His next three games were really big ones. If only he had spent more time on conditioning exercises, this terrible thing might have been avoided. Let us seriously consider this business of conditioning. A coach cannot possibly win with his best boys on the sideline. He should insist on his players being in perfect physical condition.

In order to be sure that not one of our players would suffer an injury similar to Bob's we devised a set of rigid conditioning exercises. It was felt that our offense was varied enough to carry us through the schedule, so we concentrated on getting the boys ready physically. We are proud to say we went through the rugged nine-game schedule without one injury. As a result, we are thoroughly convinced that physical conditioning and fundamentals are the two most important phases of high school football.

Our boys had five weeks to get ready for the opening game. For the first three weeks we worked very hard on conditioning. After this time we began to taper off somewhat and tried to prime the players for the first game. Every coach knows how important it is to win the first one.

During the first three weeks of practice each session lasted one hour. Of this time forty-five minutes were spent on calisthenics. Our calisthenics consisted of nine different exercises, each lasting five minutes. Of course, during the five minutes, short breaks were given. Each exercise was given with a definite purpose in mind. Also, the basic position of each one was changed as much as possible. Thus lackadaisical movement was eliminated. It might be worth while to men-

**P**AUL MASSEY played end for Pittsburgh and then following service in the navy completed his competition at Maryland as a back-field man. He coached at Charlotte Hall Military Academy in Maryland for three years, going to Palmyra, New Jersey, High School in 1952. His 1953 team was undefeated and in September 1954 he assumed the football coaching duties at Broughton High School in Raleigh.

tion the fact that the more spirit put forth while doing these exercises, the more benefit is derived from them.

Whenever and wherever possible we dispensed with the counting system, that is, 1, 2, 3, and 4. Instead the name of our next opponent was used. The same rhythm was followed, only the name of the team was substituted for the numbers in this manner: "Let's-beat-Steel-ton." This system definitely helped the boys to be mentally conscious of the impending game and the good competition they would be facing. Our conditioning exercises follow: They are in the exact order, beginning with Number 1, and each is followed by a brief description and the benefits expected.

1. *Jumping-Jack.* Start at the position of attention. On the count of 1 the player's feet are spread and his hands are raised overhead so that they clap together. On the 2 count the starting position is assumed. The boys are told to remain on their toes throughout the exercise. This exercise relaxes and awakens the boys, in addition to building up their ankles.

*Knee-Bends.* The players place their hands on their hips. For half the exercise we use four counts, going to the following positions: quarter, half, full bend, and up. For the second half we go with the full bend on 1 and up on 2. This exercise will strengthen the knee joint and the leg muscles. If it is done while a player is on his toes, it will aid balance.

*Push-Ups.* Starting position is up on the hands and toes, with the back straight. On the count of 1 the player goes down and chews some grass, and on 2 he comes back up. We start with ten push-ups and take a slight break, then nine and so on until we work down to one. Our boys do fifty-five push-ups a session. This exercise definitely builds up the shoulder and arm muscles.

*Sit-Ups.* We call these Olympic sit-ups because we were told our Olympic athletes use them. At the start the player lies flat on his back with his legs extended and his hands on his

(Continued on page 68)

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3 Combinations at  
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**CHAMPION'S** "Complete Phys Ed Uniforms" are priced lower, and the savings are passed along to you.

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## FEATURING:

- T-Shirts in white and colors.
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- Your school design processed in your own school color on both shirt and pant.
- Permanent color processing that will not fade, run or wash out.
- Consecutive numbers incorporated in the design at no extra charge.

### GYM SUIT COMBINATION 1 (All White)



**T-Shirt: Style 78QS.** Top quality cotton, full cut, ribbed form-fitting neck. **WHITE ONLY.** Sizes: S-M-L.

**Gym Pant: Style KEJ.** Full cut, 4 piece "Sanforized" cotton twill. Triple stitched Boxer style waist with heat resistant 1/4" elastic. **WHITE ONLY.** Sizes: XS-S-M-L.

Complete Price, including shirt and pants processed in your own school color with your own design . . .

**\$1.60 per uniform.**

For extra-large size: Add 10%

### GYM SUIT COMBINATION 2 (White and Colors)



**T-Shirt: Style 78QS.** White.

**Gym Pant: Style KE/8.** In following colors all stocked for immediate delivery: Dk. Green, Kelly, Navy, Royal, Maroon, Scarlet, Gray, Black, Gold. Full elastic waist. Sizes: XS-S-M-L.

Complete Price, including shirt and pants processed in your own school color with your own design . . .

**\$1.65 per uniform.**

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### GYM SUIT COMBINATION 3 (All Colors)



**T-Shirt: Style 84QS.** In following colors—all stocked for immediate delivery: Dk. Green, Orange, Purple, Kelly, Navy, Scarlet, Maroon, Royal, Gray, Black, Gold and Old Gold. Same construction as 78QS. Sizes: XS-S-M-L.

**Gym Pant: Style KE/8.** Complete Price, including shirt and pants processed in your own school color with your own design . . .

**\$1.75 per uniform.**

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# COACHING SCHOOL DIRECTORY

## CLINICS THIS SPRING

### CINCINNATI UNIVERSITY

**Cincinnati, Ohio** April 13-14  
**Courses**—Football.  
**Staff**—Hugh "Duffy" Daugherty and Jack Mitchell.  
**Chairman**—Jack Delaney, Athletic Department, University of Cincinnati, Cincinnati, Ohio.

See advertisement page 66

### MICHIGAN STATE UNIV.

**East Lansing, Mich.** May 4-5  
**Courses**—Football.  
**Staff**—Hugh Daugherty, Paul Bryant, and Jim Tatum.  
**Information**—Enrollment fee \$3.00.  
**Write**—Football Coaches Clinic, Continuing Education Service, Michigan State University, East Lansing, Mich.

See advertisement page 54

### ADELPHI COLLEGE C. S.

**Garden City, L. I., N.Y.** Aug. 6-8  
**Courses**—Basketball.  
**Staff**—Paul "Tony" Hinkle, "Neenie" Campbell, "Danny" Lynch, Howard Sharpe, John E. Sips, and William Spiegel.  
**Information**—Tuition \$15.00 includes semi-private room plus notes.  
**Directors**—George E. Faherty, Adelphi College, Garden City, L. I., N. Y. and John E. Sips, Huntington High School, Huntington, L. I., N. Y.

See advertisement page 52

### ALL-AMERICAN C. C.

**Bemidji, Minn.** June 24-27  
**Courses**—Football, basketball, and officiating.  
**Staff**—"Duffy" Daugherty, Les Luymes, Bob

Burns, C. B. Roels, Harry Combes, R. M. Walseth, Ace Hoberg, Mike Lagather, and Lou Fillippi.

**Information**—Tuition \$15.00.

**Director**—For reservations and accommodations write Don Stubbins, Bemidji, Minn.

See advertisement page 73

### CALIFORNIA WORKSHOP

**San Luis Obispo, Calif.** Aug. 6-17  
**Courses**—Football, basketball, baseball, track, training, swimming, gymnastics, and archery.  
**Staff**—Henry "Red" Sanders, John Wooden, Pete Beiden, Payton Jordan, and "Kickapoo" Logan.

**Information**—Tuition \$20.00 for four quarter units. Approximate cost of room \$5.00 per week; board \$2.50 per day.

**Director**—Al R. Arps, San Fernando High School, San Fernando, Calif.

### COLORADO, UNIV. OF

**Boulder, Colo.** June 18-23  
**Courses**—Football, basketball, baseball, track, and training.  
**Staff**—Dallas Ward, Hugh Daugherty, Bebe Lee, Frank Prentup, Frank Potts, and Jack Rockwell.

**Information**—Tuition \$10.00.

**Director**—Harry G. Carlson, University of Colorado, Boulder, Colo.

See advertisement page 76

### CONNECTICUT, UNIV. OF

**Storrs, Conn.** Aug. 14-16  
**Courses**—Football and basketball.  
**Staff**—Ray Eliot, Bob Ingalls, and Adolph Rupp.

**Information**—Registration fee \$10.00. Approximate cost of room \$3.50 per day; board \$2.50 per day.

**Director**—J. Orlean Christian, Athletic Director, University of Connecticut, Storrs, Conn.

See advertisement page 67

### FLORIDA STATE UNIV.

**Tallahassee, Fla.** June 7-9  
**Courses**—Football.  
**Staff**—"Duffy" Daugherty, Terry Brennan, Bud Wilkinson, and Tom Nugent.  
**Information**—Tuition \$15.00 includes room.  
**Director**—Dr. Howard G. Danford, Director of Athletics, Florida State University, Tallahassee, Fla.

See advertisement page 59

### IDAHO COACHES ASSN. C. S.

**Sun Valley, Idaho** Aug. 6-10  
**Courses**—Football, basketball, baseball, track, and training.  
**Staff**—Tom Blackburn, Bobby Dodds, Ray Graves, Joe Glanders, and Magic Valley Cowboys.  
**Information**—Tuition \$10.00 for members; \$15.00 for non-members. Board and room \$40.00 for the week.  
**Director**—Jerry Dellinger, Jerome High School, Jerome, Idaho.

Look for announcement in May issue

### SOUTHERN ILLINOIS UNIV.

**Carbondale, Ill.** Aug. 16-17  
**Courses**—Football and basketball.  
**Staff**—Al Kawal, "Wirt" Downing, "Doc" Bencini, and Dr. Forrest C. Allen.  
**Information**—Tuition \$10.00 for out-of-state coaches. Cost of room \$2.00 to \$5.00 per day; board \$2.00 to \$3.00 per day.  
**Director**—Dr. Carl E. Erickson, 808 Skyline Drive, Carbondale, Ill.



*Get faster, safer batting practice with*

# Power Pitcher

**Fires 8  
automatic  
strikes a  
minute!**



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Power Pitcher hurls automatically with accuracy and controlled speed. Permits concentration on batting that otherwise would be too time-consuming. Every player gets all the practice he needs. Machine can be instantly adjusted to change of speed and to pitch across the plate, high, low, inside or out. Sends out-field flies or infield grounders.



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for April, 1956

# 1956 COACHING CLINIC

## University of Oregon

**JUNE 11**  
through  
**JUNE 16**



AUTHORIZED BY OREGON STATE BOARD OF HIGHER EDUCATION

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Los Angeles Rams Football Coach —  
formerly head football coach at University of Cincinnati.

**MELVIN KAWSOE**, Head Football Coach,  
Vale High School, Vale, Oregon.

**BASKETBALL — FRANK (Bucky) O'CONNOR**,  
Head Basketball Coach, University of Iowa, 1956  
Big Ten Champions.

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**TRACK AND FIELD** Staff, University of Oregon.

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**ROLAND LOGAN**, of Logan, Inc.

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**CREDIT:** 2 quarter hours of upper division credit.

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EUGENE, OREGON

## INDIANA BASKETBALL SCHOOL

**Kokomo, Ind.** Aug. 24  
Courses—Basketball.  
Staff—To be announced.  
Information—Tuition \$10.00 includes set of notes. Average cost of room \$3.00 per day; board \$3.00 per day.  
Director—Cliff Wells, Tulane University, New Orleans, La.

## KANSAS H.S. ACTIVITIES ASSN.

**Wichita, Kans.** Aug. 20-23  
Courses—Football, basketball, and training.  
Staff—To be selected.  
Information—Tuition \$10.00.  
Director—E. A. Thomas, 1600 Topeka Blvd., Topeka, Kans.

## LOUISIANA H.S. COACHES ASSN.

**Baton Rouge, La.** July 30-Aug. 3  
Courses—Football and basketball.  
Staff—Bud Wilkinson and Ara Parseghian. Others to be announced.  
Information—Tuition \$5.00. Housing free to all coaches.  
Director—Woodrow Turner, 151 Charles St., Shreveport, La.

## UNIV. OF MARYLAND

**College Park, Md.** June 14-16  
Courses—Football, basketball, baseball, track, training, and wrestling.  
Staff—Tom Mont, Bill Dovell, Bob Ward, Fred Lazman, John Idzick, Ed Fullerton, Joe Moss, Bud Millikan, Roy Lester, Burt Shipley, Jim Kehoe, Duke Wyre, Spider Frye, and Sully Krouse.  
Information—Tuition \$25.00 for college coaches; \$15.00 for high school coaches.  
Director—William H. Dovell, Assistant Coach, Box 295, Athletic Department, University of Maryland, College Park, Md.

## MICHIGAN, UNIV. OF

**Ann Arbor, Mich.** June 25-July 6  
Courses—Football, basketball, track, and training.  
Staff—Bennie Oosterbaan, Bill Perigo, Don Canham, and Jim Hunt.  
Information—Tuition \$20.00 resident; \$30.00 non-resident. Average cost of room \$3.00 to \$4.00 per day; board \$4.00 to \$5.00 per day.  
Supervisor—Howard C. Leibeck, Waterman Gymnasium, University of Michigan, Ann Arbor, Mich.

## NORTHERN MICHIGAN C.S.

**Marquette, Mich.** Aug. 24  
Courses—Football, basketball, and training.  
Staff—Murray Warmath, and "Bucky" O'Connor. Others to be selected.  
Information—Tuition \$12.00 includes room and board.  
Director—C. V. "Red" Money, Northern Michigan College, Marquette, Mich.

## MISS. ASSN. OF COACHES

**Jackson, Miss.** July 31-Aug. 3  
Courses—Football and basketball.  
Staff—Bud Wilkinson, Bear Bryant, and Frank McGuire.

### Fifth Annual

## ADELPHI COLLEGE COACHING SCHOOL

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### 24th Annual



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**ABE MARTIN** ..... T.C.U.  
**ALLIE WHITE** ..... T.C.U.  
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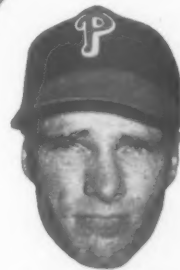
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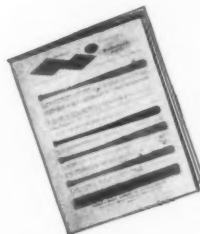


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See advertisement in May Issue

### MONTANA UNIVERSITY

**Missoula, Mont. June 11-15**  
**Courses**—Football, basketball, and training.  
**Staff**—Jerry Williams, Frosty Cox, and Roland "Kickapoo" Logan.  
**Information**—Tuition \$10.00.  
**Director**—Athletic Director, Montana University, Missoula, Mont.

See advertisement page 75

### NEW YORK STATE C.S.

**Rochester, N. Y. Aug. 20-23**  
**Courses**—Football, basketball, baseball, soccer, wrestling, and training.  
**Staff**—To be announced in the May issue.  
**Director**—Philip J. Hammes, Proctor High School, Utica, N. Y.

See advertisement page 77

### OHIO H.S. COACHING SCHOOL

**Canton, Ohio Aug. 13-17**  
**Courses**—Football.  
**Staff**—Woody Hayes, Hugh Daugherty, Jim Tatum, Blanton Collier, and Terry Brennan.  
**Information**—Tuition \$10.00 for members; \$15.00 for non-members.  
**Director**—J. R. Robinson, Lehman High School, Canton 3, Ohio.

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### OKLAHOMA COACHES ASSN.

**Oklahoma City, Okla. Aug. 12-16**  
**Courses**—Football, basketball, baseball, and training.  
**Staff**—Bud Wilkinson, Wallace Butts, and Ken Rawlinson. Others to be announced.  
**Information**—Tuition \$10.00.  
**Director**—Clarence Breithaupt, 2012 N. W. 44th St., Oklahoma City, Okla.

### OREGON, UNIV. OF

**Eugene, Ore. June 11-16**  
**Courses**—Football, basketball, baseball, track, training, wrestling, and trampolining.  
**Staff**—Sid Gillman, Melvin Kawasoe, Bucky O'Connor, Don Kirsch, "Kickapoo" Logan, Bill Hammer, and George Nissen.  
**Information**—Tuition \$16.00 — may be applied toward regular summer session tuition. Average cost of room \$2.50 per day; board \$2.50 per day.  
**Director**—Arthur A. Esslinger, School of Health and Physical Education, University of Oregon, Eugene, Ore.

See advertisement page 52

### RIVER FALLS COACHING CLINIC

**River Falls, Wisc. June 14-16**  
**Courses**—Football, basketball, and training.  
**Staff**—"Red" Sanders and John Wooden. Others to be announced.  
**Information**—Tuition \$15.00. Approximate cost of room \$2.00 per day.  
**Director**—Phil Belfiori, Wisconsin State College, River Falls, Wisc.

### SO. CAROLINA COACHES ASSN.

**Columbia, S. C. July 29-Aug. 3**  
**Courses**—Football, basketball, and training.  
**Staff**—"Duffy" Daugherty, Woody Hayes, Everett Case, and Sam Lankford.  
**Information**—Tuition members \$7.50; non-members \$15.00.  
**Director**—Harry Hedgepath, 1623 Harrington St., Newberry, S. C.

### SOUTHERN UNIV.

**Baton Rouge, La. June 11-16**  
**Courses**—Football, basketball, baseball, and track.  
**Staff**—Gomer T. Jones, Frank Broyles, Johnny McLendon, and John O'Neil.  
**Information**—Tuition \$10.00. Average cost of room \$1.00 per day; board \$2.00 per day.  
**Director**—A. W. Mumford, Southern University, Baton Rouge, La.

### TENNESSEE COACHES ASSN.

**Cookeville, Tenn. July 25-28**  
**Courses**—Football, basketball, baseball, track, and training.  
**Staff**—Bobby Dodd, "Bucky" O'Connor, John Oldham, Buster Boguskie, Wilbur Hutsell, and Joe Worden.  
**Information**—Tuition free. Room in dormitory and meals \$8.50 for entire session.  
**Director**—Wilburn Tucker, Tennessee Tech, Cookeville, Tenn.

### TEXAS H.S. COACHES ASSN.

**Lubbock, Texas Aug. 5-10**  
**Courses**—Football, basketball, baseball, track, and training.

**Staff**—Paul Bryant, Jess Hill, Abe Martin, "Allie" White, Walter Roach, Oliver Jackson, and Delmer Brown.  
**Information**—Tuition \$11.00 for members plus \$2.00 membership fee; non-members \$16.00; commercial companies \$26.00.  
**Director**—L. W. McConachie, Box 626, Edna, Texas.

See advertisement page 52

### UTAH STATE COACHING SCHOOL

**Logan, Utah June 4-9**  
**Courses**—Football, basketball, baseball, and training.  
**Staff**—Paul Bryant, Everett G. Faunce, Adolph Rupp, H. Cecil Baker, Howard Haak, Branch Rickey, Jr., Roland "Kickapoo" Logan, and George Nelson.  
**Information**—Tuition \$10.00.  
**Director**—H. B. Hunsaker, Utah State Agricultural College, Logan, Utah.

### VIRGINIA STATE COLLEGE

**Petersburg, Va. June 18-22**  
**Courses**—Football and basketball.  
**Staff**—Ara Parseghian, Gomer T. Jones, and Branch McCracken.  
**Information**—Tuition \$15.00. Average cost of room and board \$4.00 per day.  
**Director**—W. W. Lawson, Virginia State College, Petersburg, Va.

### WASHINGTON H.S. COACHES

**Spokane, Wash. Aug. 20-24**  
**Courses**—Football, basketball, baseball, track, and training.  
**Staff**—Dallas Ward, Bucky O'Connor, Bob Mattick, Stan Hiserman, and "Kickapoo" Logan.  
**Information**—Tuition free to members; \$10.00 for non-members. Average cost of room \$1.50 per day; board \$3.00 per day.  
**Director**—A. J. Lindquist, 3215 E. Mercer, Seattle 2, Wash.

### WEST VIRGINIA UNIVERSITY

**Morgantown, W. Va. July 23-Aug. 17**  
**Courses**—Football, basketball, wrestling, and training.  
**Staff**—Bernie Crimmins, Art Lewis, Russ Crane, Quentin Barnette, Gene Corum, Ed Shockey, Bob Snyder, Fred Schaus, Steve Harlick, and A. C. Gwynne.  
**Information**—Tuition \$4.00 per credit hour for residents of West Virginia; \$8.00 per credit hour for non-residents. Room and board \$15.00 per week.  
**Director**—Ray O. Duncan, Dean, School of Physical Education and Athletics, West Virginia University, Morgantown, W. Va.

### WISCONSIN H.S. COACHES ASSN.

**Madison, Wisc. Aug. 6-10**  
**Courses**—Football, basketball, baseball, track, training, wrestling, and tennis.  
**Staff**—Terry Brennan, Milt Bruhn, Bud Foster, Art Mansfield, Riley Best, and Walt Bakke.  
**Information**—Tuition \$1.00 for members and students; \$10.00 for non-members. Average cost of room \$1.50; meals \$3.00 per day.  
**Director**—Harold A. Metzen, 1623 Jefferson, Madison, Wisc.



# There Never Was a Shoe Like This!

The great new

## U.S. ROYAL

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## "POWERLIFT"

**Built-in "PowerLift" keeps foot and shoe together, stops slipping, speeds action.**

Here, for the first time, is a basketball shoe that actually lets the player use all of his native speed and maneuverability because this is the first shoe that hugs the sole of the foot, all the time, with every motion!

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For the first time, foot and shoe move, and act, as one. The result is faster starts, less loss of power, quicker physical reaction to the player's reflexes.

The U. S. Royal has all of the design features that have made the U. S. Sureshot one of the great names in sport. Now, with patented "PowerLift," the U. S. Royal has no equal for top-flight play!



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**ORDINARY SHOE.** Player's foot moves faster than shoe, resulting in "shoe lag" and loss of speed. Toe irritations and sole blisters often are caused by the foot sliding forward inside shoe.



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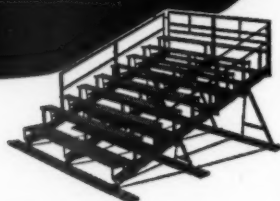
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Hussey stands meet every safety requirement, last indefinitely, can be erected or taken down faster and easier and stored in a smaller space than any other stand on the market. No skilled help is needed. The same stand can be used indoors and out, is available in sections and tiers to meet your needs, at low cost.

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## New Books

**Planning the Golf Clubhouse**, by Harold J. Clipper. Published by the National Golf Foundation, 407 South Dearborn St., Chicago 5, Ill. Ninety-six large-size pages. Price \$9.00. Publication date Feb. 15. Received for review Feb. 16.

With golf experiencing a tremendous boom, it was only natural that some thought be given to the clubhouse facilities. Also, it was natural that the National Golf Foundation should undertake the preparation of the material, because this organization has been largely responsible for the great growth which golf is experiencing.

The book is the product of nearly a year's work by the Building Research and Development Corporation, specialists in institutional design and planning. Among the subjects discussed are: What facilities should be included? What are the space requirements for memberships of varying size? How much consideration should be given to junior golfers, etc.

Any college or community that is building a new golf course or remodeling the present clubhouse should have this book. It will avoid many mistakes which have been made in the past in regard to clubhouse planning.

**1956 High School Track and Field Annual**, by Dick Bank. Published by Track and Field News, Los Altos, Calif. Thirty-two pages. Price \$1.00. Publication date Feb. 1956. Received for review Feb. 20.

This little booklet (page size 5 1/2" x 4 1/8") lists the best performances of all time made by a high school performer. In addition, there is a listing of the best performances during the year 1955. In selecting the "High School Trackman of 1955" the editors selected Charlie Dumas and chose the same picture of him for their cover as we selected for the front cover of our January issue.

**Methods and Materials in School Health Education**, by Leslie Irwin, James Humphrey, and Warren Johnson. Published by C. V. Mosby Co., St. Louis 3, Mo. Three hundred and

sixty-seven pages. Price \$4.50. Publication date Jan. 1956. Received for review Feb. 17.

The three authors are outstanding authorities in the field of school health education. Dr. Irwin is professor of health education at Boston University, while Drs. Humphrey and Johnson are professors at the University of Maryland. This book places the main emphasis upon methods of teaching health. Considerable space is allocated to oral presentation in health education, material aids such as posters, charts, etc., audio visual materials, radio and television demonstrations, field trips and museums, dramatization, and sources of health education materials.

Whereas the book is designed primarily as a text for those who will enter the field of education and specialize in teaching health courses; nevertheless, it will present many new ideas to those who are now active in that phase of education.

**Devil At My Heels**, by Louis Zamperini and Helen Itina, with a foreword by Billy Graham. Published by E. P. Dutton & Co., New York 10, N. Y. Two hundred and fifty pages. Price \$3.95. Publication date Feb. 1956. Received for review Feb. 10.

The book recounts the life story of Louis Zamperini and undoubtedly was occasioned by his appearance on Ralph Edwards show, "This Is Your Life." After a most heroic war career he went through a bitter period of readjustment and then turned to religion. Today he is in youth work for underprivileged children in Los Angeles.

**Dick Button on Skates**, by Dick Button. Published by Prentice-Hall, Inc., Englewood Cliffs, N. J. Two hundred and seventeen pages. Price \$3.95.

The author devoted the greater portion of the book to recounting his many notable successes in the figure skating world. However, in the 69 pages devoted to technique Button has done an outstanding job. Sequence photos and drawings are used to clarify the various turns.

## Defensive Football

(Continued from page 16)

advantage he holds over the offensive player — he is permitted to use his hands. Second, a defensive lineman can pursue faster by using the shiver rather than the lift on his initial charge. It is difficult to get penetration with a forearm shiver. The lift is used when we wish to get penetration and meet force with force, as on a short yardage situation. The following axioms govern our penetration and team pursuit: The further one penetrates, the further one must pursue. Penetrate to a minimum for safe and quick pursuit. Minimum penetration, maximum pursuit; whereas maximum penetration, minimum pursuit.

### Gang Tackling

Gang tackling is the most demoralizing maneuver in football and is a must for good defensive play. We tell our players the ball-carrier is fair game until the whistle blows or he is definitely on the ground and cannot advance the ball. We want every defensive player to fight to get a large piece of the ball-carrier on every play.

Tackling consists of two basic factors, desire and form. It is approximately 75 per cent desire and 25 per cent form. Many coaches feel the former cannot be improved but form can be taught and improved. They believe that either a player has it or he does not have it. While we are inclined to agree with this philosophy to some extent, we work hard trying to cultivate the desire to get the job done. In fact, we spend little time emphasizing form tackling. We do not care how a man tackles the ball-carrier as long as he gets him. There are not many opportunities during a game for picture tackles anyway, and the defenders have to be content to get any part of the ball-carrier.

We believe rapid play recognition contributes to the proper angles of team pursuit and gang tackling and try to accomplish this objective in several ways. We try to familiarize our players with the best and favorite plays of the different offensive formations, generally, and our opponents' offense, specifically. Usually a quarterback or his coach will follow a particular pattern or sequence in long gain, short gain, and normal gain situations. Generally, a team has a particular series of offensive plays near the goal



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line, etc. We do not want our players to guess where the offense is going to run the play, but familiarizing them with the offensive systems and how a particular opponent operates from that system generally aids in play recognition. This factor contributes to team pursuit and gang tackling.

Second, we try to familiarize our players with the strengths and weaknesses of a number of different defenses, generally, and specifically with the defenses we employ regularly. As stated previously, there is no perfect defense because the field is too large to cover. Consequently, when we are using a particular defense and a team is wise enough to exploit the weakness of that defense, we realize we must change to another defensive alignment. Well-drilled quarterbacks will attack the weak parts of a particular defense. Failure of the offense to capitalize on a weakness of a particular defense is conceding a definite advantage to them and contributes materially to defensive morale.

Third, when we can force the opposition to do the obvious on offense, we believe it leads to rapid play recognition and the advantage is with the defense rather than the offense. As an illustration, Ohio State's Woody

Hayes, at the North Carolina Clinic last summer, cited nine mistakes which lose ball games. While all of these mistakes are offensive in nature, notice how the defense can lead up and control the situation in more than half of them because the mistakes are obvious.

These mistakes which lose football games are: 1. Waiting until fourth down to punt deep in your own territory. 2. Failure to punt on fourth down. 3. Failure of a team to use the kicking game on a bad field. 4. Use of the long pass on an obvious passing situation. 5. Pressing your luck right before the half. 6. Failure to use a safety if necessary. 7. Failure to use almost the sure field goal. 8. Failure to use a touchdown sequence when time is running out. 9. Huddle discipline.

Important details such as down and distance to go for the first down or a score affect every defensive man on every play. Other important details which must be taken into consideration by the defensive players are position on the field, time left to play, weather, wind, and field conditions.

#### Pass Defense

We believe in the old axiom *put first*

things first. Reiterating the widely recognized and accepted fact, that the one play which will defeat a team the quickest in football is the long pass for the *easy* touchdown, we wish to eliminate this play first. In the last two years only one *easy* touchdown has been scored against us in this manner. We give first consideration in our defensive planning and in our practice sessions to defending against the forward pass.

Pass defense has these four important phases: 1. Rushing the passer aggressively. 2. Delaying eligible receivers at or near the line of scrimmage. 3. Secondary pass coverage. 4. Interception of the pass or tackling the receiver.

In applying pressure on the passer, it is essential that the defensive players rush aggressively, proceeding through the blockers' areas and not around them. The number of men rushing the passer will vary according to the tactical situation, i.e., the factors mentioned previously which affect defensive players. Gang tackling is the intention of the men rushing the passer. While they are low in their initial pass rush charge, as they approach the passer the defensive players should get their hands high. They

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  - \* Shows when and how hard boy hits.
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  - \* Develops — footwork — agility — control.
- ADJUST spring tension. By one key.

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- DEFENSE — Not just a claim.
  - \* Two-hand forearm shiver.
  - \* Shiver slide and shiver next board.
  - \* Shiver — loop and shiver again.
- ADJUST weight. By platform.

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should never leave their feet unless the passer has thrown the ball and they are attempting to block his pass.

Defensive linemen are taught to key on their opponent's block, which is usually a high or drop-back pass block. As soon as this occurs, the defensive linemen are expected to call, *Pass*. The defenders must be alert for a screen pass. They must determine quickly whether the offensive player has missed his block or he is permitting the defender to come through. If they are in doubt they are instructed to *stand high* and to call *Screen*, when they are certain it is this type of pass play. It is advisable to designate one or two defensive players to be alert for the screen pass and to drop off to cover the receiver, depending on whether the screen is thrown to the flats or in the middle.

In the second phase of pass defense — holding up the eligible receivers at or near the line of scrimmage — we attempt to have our linebackers, ends, and tackles bother these receivers with the idea of spoiling their timing, especially on the quick passes. Linebackers are still expected to cover their assigned zones after hindering the progress of the intended receivers. The ends and tackles are expected to rush the passer after holding up these receivers, unless the ends have been instructed to drop off and cover the flats.

At least two or possibly even three defensive men are needed to hold up one receiver. It is questionable whether it is advisable to play two or three men on one offensive player. Therefore, we merely try to knock the intended receiver off stride or out of his intended path with the idea of spoiling the timing of the pass pattern. Care must be exercised in holding up these men so the defensive players are not guilty of holding.

Phase three — secondary pass coverage — is an extremely important part of pass defense. In order to have a good pass defense the coach must sell his players on the type he believes to be the best, whether it be man-for-man or zone. A majority of the high schools and colleges probably play a zone defense which is usually man-for-man within the zones. Regardless of which pass defense is used, it must stop the long passes that will result in easy touchdowns or long gains, even at the sacrifice of a few short completions over the line of scrimmage.

We all have the same set of rules for pass defenders, some of which are as follows:

1. Play for a pass first and then

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react to a running play.

2. Key on offensive linemen who do not have a defensive man in front of them. (The center on four and six-man defenses and the guards on five, seven-man, 5-4, etc., defenses).

3. After they receive their key from the interior linemen, by that we mean finding out whether they cross the line of scrimmage and come downfield or drop back in a pass block, the pass defenders should shift their attention to the ends or flankers and play them.

4. They should never permit a receiver to get behind their deep backs.

5. Pass defenders should not follow head, arm or leg feints, and should not turn their backs on the ball.

6. Keep at least three yards beyond the intended receiver and try to look at the passer through the receiver.

7. As the ball leaves the passer's hand, they should go to the ball regardless of where they are, and go through any receiver near the ball.

8. Maintain direct voice contact with the other defensive backs so they know exactly how the intended receivers are being covered, especially when receivers cross, go from one zone to another, or have two men in the same zone.

9. The deep backs should always be as deep as the deepest, and as wide as the widest, and always play the sideline.

10. Always intercept a pass; never give the opposition another chance to get a touchdown.

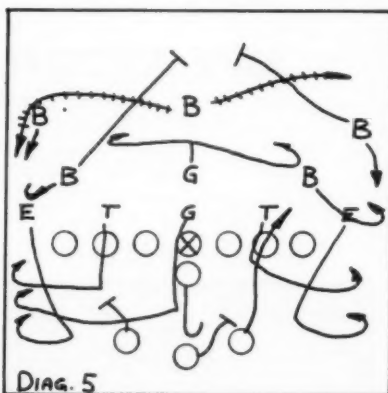
11. Be ready to block if the pass is intercepted.

12. If two or three defensive men are in the same area, one man should call for the intercepted ball while the other one or two protect in front and back, rather than have all three men on the same side battle each other for the ball.

13. The closer the offensive team gets to the defensive team's goal line, the closer the pass defenders play the intended receivers.

14. Know the down, distance, and tactical situation at all times.

The fourth important phase of pass defense is either intercepting the ball with the idea of a maximum return, or tackling the receiver if the pass has been completed. The defenders should never bat the ball with the idea of deflecting it out of the receiver's hands. If the pass has been completed, we expect the receiver to be inside the defensive perimeter. The defender is instructed to tackle the receiver hard to try to jar him loose from the ball and to make him cautious the next time he comes out for a pass.

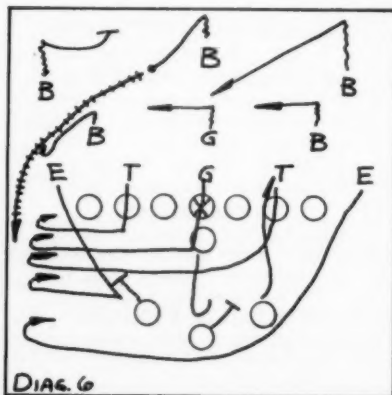


The defender should not go to his knees on the tackle. All defensive players should hustle to assist the defensive back in gang tackling.

If the pass is intercepted, each man is expected to call, *Block*, and to pass the word down the line. The second rule on interceptions is as follows: "The first free defensive man, nearest the intended receiver and the defender who intercepted the pass, must block back on the man for whom the pass was originally intended." In order to get a maximum return on the interception, we expect to get some peel-back blocks by the linemen who rushed the passer. They must hustle and react toward the ball after it leaves the passer's hand. Diagram 5 shows a pass which is thrown down the middle and the positions of defensive players after they hear the word, *Block*. An interception return on the right side is shown in Diagram 6.

For additional suggestions relating to pass defense, we suggest reading Vinton Rambo's article, "Pass Defending the T," in the September, 1955 issue of the *Athletic Journal*.

Part of our philosophy of pass defense is informing the players regarding what causes interceptions. We try to force our opponents to make these



mistakes and then try to capitalize on their miscues. As Coach Woody Hayes pointed out at a clinic, passes are intercepted for the following reasons: 1. The trajectory is incorrect. 2. The pass protection breaks down. 3. The passer is not in his pocket. 4. When the passer throws the intended long pass, short, and intended short pass, long. 5. When a pass pattern is poorly executed. 6. When the offensive team attempts to pass deep on an obvious passing down.

Our philosophy regarding pass defense is as follows: We wish to rush the passer aggressively, which will cause his protection to break down, force him to hurry his pass, throw off the timing of both the passer and the intended receivers, and permit the defense to intercept the pass and execute the necessary reactions for the maximum return of the interception.

### Conclusion

We are certain if a coach will adhere to the objectives and principles of defensive football, his team's defensive play will be improved. We have obtained good results through selling the players on our philosophy of defensive football. In 1955 we intercepted 14 passes, gained 237 yards, and scored three touchdowns by returning the interceptions. Our opposition either fumbled or was caused to fumble 29 times. We recovered 17 of their fumbles, many times gaining possession of the ball in favorable locations on the field. While we handled only 12 punts for the entire season, we averaged 23.6 yards per return for 284 yards and scored on one 65-yard return. We blocked one punt and stopped the punter on three other occasions on fourth down before he could kick the ball. It should be pointed out that in 1954 we blocked six punts and either set up scores or scored on the punt return, including one for a 95-yard touchdown return. Offensively we averaged 400.8 yards per game as compared to our team defense of 145.5 yards rushing and 40.9 yards passing, per game, in compiling an 8-0-0 record. Four of our opponents were scoreless and the other four scored a total of five touchdowns, 31 points, 3.87 points per game, as compared to our 45 touchdowns, 299 points, 37.4 points per game. We feel there is a definite correlation between a high-powered offense and a tenacious defense.

In a subsequent issue we shall discuss organizing the defensive practice schedule and show functional drills which improve defensive play.

# Running the Bases

(Continued from page 38)

which will lead to more successful base-running.

In attempting to beat out a ground-er the runner (a batter becomes a runner as soon as he hits a fair ball) should keep his eyes straight ahead, not on the ball, and hit first base while taking a normal stride. A runner should never jump the last step in order to touch first base because too much time is lost during this movement.

Coaches should instruct their players that on all base hits into the outfield the runner will run as fast and as hard as possible and round first base at top speed, and only then should he look to see the location of the ball. If the fielder bobbles the ball even for a split second, the runner should continue at top speed into second base. This technique has been very successful by all those who have used it as long as baseball has been played. However, it should be made clear that game situations dominate this play.

As we stated previously, speed is

not the most important asset in good base-running. For example, a fast runner with a poor start will be thrown out in contrast to his slower playing mate who is always ready.

A good lead off first base is very important. Experts say two steps and a slide provide a safe substantial lead. The cross-over step is the next important item when stealing because it gives rise to the jump and will determine largely the fate of the runner.

A big fault of runners in their attempt to steal is the angle lead they take. *The shortest distance between two points is a straight line.* This quotation is a geometrical fundamental, and we can apply it to stealing bases in baseball. Runners should take leads which are on a straight line with the next base. Too many runners are thrown out by just a step, and this straight lead rather than an angle lead may take up that slack.

All runners who go into a base standing up are making two big mistakes. First, they are increasing their chances of getting thrown out because they have to slow up or run past the base. Second, and just as important, when a runner stands up he increases his chances of getting

hurt. A rule should be made as soon as possible that all runners must slide into bases.

Sliding is a basic instinct in all human beings, especially in the case of baseball players. Techniques of the fade-away slide, the hook slide, the stand-up slide, and others can be taught very easily because of this fact. Coaches may construct pits filled with sand and sawdust to take care of sliding instruction.

Speaking of sliding, we have seen many ball players make the mistake referred to by Branch Rickey as the 93-foot baseline. What the master meant was that runners would make a hook slide, with the front foot as much as three feet beyond the base, and the rear foot not in contact with the bag. Runners should go straight into the base, touching the bag as soon as possible, and then following through with the right or left foot, depending on the side that is being used.

When running bases, high school players should be taught to watch the base coaches and not the ball. This error is probably the most common one made in unorganized baseball.

When a runner is on third he may

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run up and down, waving his hands and yelling wildly. If this runner accomplishes his task of upsetting the pitcher, the energy expended by his overt actions may be worth the trouble. However, very few pitchers are unnerved as a result of these antics and continue to carry on true to form. In the meantime, the runner is only upsetting himself. He is running up the line toward home while the pitcher is in his wind-up, but as soon as the pitcher delivers the ball, the runner is on his way back to third. Supposing there is a passed ball, a wild pitch or a slow grounder to a deep spot in the infield — the chances are that the runner will not make an attempt to score because he is going away from the play. If he attempts to score, the chances of his being thrown out are multiplied. We want our runners to be going forward at all times. We ask them to take a good substantial lead and hold it. Then if there is a passed ball, a wild pitch, or a slow grounder, the runner will not be going back, but forward, increasing his chances for a run scored.

When a runner is on third and there are less than two outs, he should always tag up on all fly balls to the outfield, including line drives. If the batted ball falls in for a safety the runner will score easily, and if it is caught the runner is in a position to score. Many times runners have failed to tag up thinking the ball would fall in safely only to find it is necessary for them to return to base when the fielder makes the put-out.

We like to teach our boys to score on all ground balls when runners are on first and third. If a play is made at home, the runner should stay in the *pickle* until all runners have advanced as far as possible. This strategy breaks up the chances for a double play. If the infield decides to go for two, the runner on third will score easily.

A particular strategy that is employed by many managers, including some in the major leagues, is for a tag-up by a runner on second base with one man out. We are against this type of move for very obvious reasons. When one man is out and the fly ball is caught for a second out, there is not much advantage in having a man take the risk of going to third base. A base hit will score him from second almost as easily as from third.

We have used these base-running rules very successfully in the past and feel that they can be applied to groups ranging from high school to the major leagues.



## Javelin Throw

(Continued from page 11)

shoulder around to the front, as shown in Illustration 8.

The illustrations show Bitner carrying the javelin with the palm of his right hand upward, which adds wrist action upon release. Les is pulling to the left as shown by the position of his feet. His head is turning to the left prior to the throw; therefore, he is not able to get full body power into the throw. These pictures were taken at the Drake Relays. That day Bitner's timing was off and he was not at his best. At the NCAA Meet, after working on his timing, his form was much better.

Garcia uses a technique which suits his physique. Illustration 1 shows him carrying the javelin over his shoulder, and using the Finnish method which is the most effective for him. Notice that the javelin is over his right shoulder and pointing in the line of trajectory, parallel with the ground, and approximately level with his right ear. His elbow is bent and pointing slightly to the right at about a 45° angle. Garcia's wrist is not stiff; it is bent backwards slightly. He begins the run on his right foot and hits the first check mark about five strides away at one-quarter speed. At the second check mark he accelerates to two-thirds speed, after about seven additional strides, and hits on his left foot. Before hitting the third check mark his throwing arm extends backward gradually and keeps the javelin parallel with the ground. He hits the third check mark on his left foot at the maximum controllable speed. Along with keeping his speed, Garcia is getting into throwing position and uses three quick steps which are not shown in these illustrations.

These three steps are taken from the third check mark. Garcia's first step is taken on his left leg and is slightly longer than the last two. Illustration 5 shows Garcia trying to get his legs and hips in front at the trunk and shoulder. From this step, he runs slightly sideways with his legs and left hip leading, knees bent. His right shoulder and right arm are stretched back as far as possible.

His second step is a quick cross-over (right over left) which places him in an effective throwing position. As his right foot strikes the ground, as shown in Illustration 6, his left foot (step three) is brought up rapidly and strikes the ground in a stiff position. The left toe is pointing in slightly;

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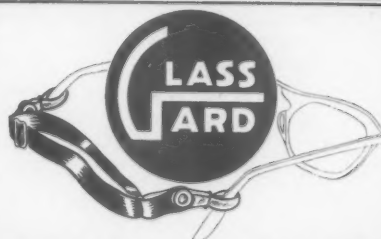
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We shall continue our efforts in the Executive Office to encourage programs aimed toward family unity and youth development. I hope that our schools, recreation departments, youth organizations, churches and other civic groups will find in the 1956 National Sports Festival a means of highlighting the good work they are now doing and of enlisting community cooperation in making their programs even more effective.

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his right foot is pointing at about a 45° angle from the line of trajectory.

As soon as his left foot strikes the ground and is firmly planted, the actual throw begins, as shown in Illustration 8. At this point he starts the hip rotation forward. His right leg is pushing in an upward motion and he keeps his right arm extended back as far as possible. Garcia's right arm comes over his right shoulder, leading with the elbow, as shown in Illustration 9. He keeps his left hand bent and held high to prevent dropping his left shoulder. At this point Garcia makes a final drive off his left leg in an upward lift and uses a whip-like motion from his elbow. His eyes are on the javelin momentarily. He finishes the throw on his right leg, thus winding up the follow-through.

We cannot say that the form shown by Bitner and Garcia in these illustrations is the best for every thrower to follow. It must be remembered that Bitner had one of his worst days at the Drake Relays where these pictures were taken. We had the opportunity of watching him in Los Angeles at the NCAA Meet and his form was considerably improved.

Garcia, whom we have watched for the past four years, has been fairly consistent in his form and also in his performances. He did show some improvement in his follow-through and in the back bend just before the throw.

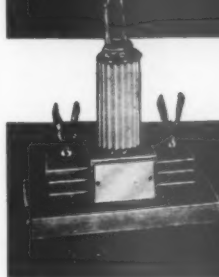
There has also been quite a bit of discussion about the advantages of what is known as the *Held Javelin* and how much it has helped the American throwers. We think it has helped our javelin throwers just as other implements have helped in other events, but also believe we should give the boys credit for the way they have worked to achieve the marks they are now making. For instance, Bud Held has made a very thorough study of flight and has worked on many different theories in improving his javelin throw. Bill Miller also has put in hour after hour improving and developing new techniques so that he can get greater distance from his limited physical equipment.

We had the opportunity to work and watch Miller before and after the last Olympics, and noticed a great change in his form during these years. Garcia, being able to work with Miller, has picked up many of his methods of throwing, such as bending his back and uncoiling just before the throw.

Regardless of the implement, these boys should all be given credit for putting the United States at the top in the event which avoided us for so

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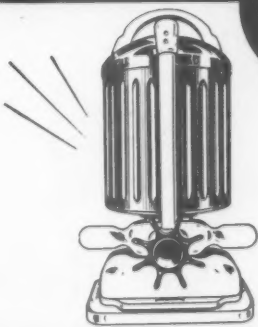
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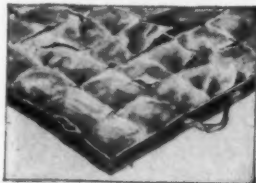


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## Ground Strokes

(Continued from page 34)

through as that area after contact over which the racket head can continue on the flight of the ball. After the head passes beyond the flight of the ball, the stroke is merely ending and not following through. Admittedly, this is a strict interpretation, but if nothing else, it will serve to highlight the hitting area.

In the hitting area the racket must be set up at some point directly behind the ball to thrust through it in the direction desired. This can happen at contact or just behind contact. Regarding the level of the racket, both the forehand and backhand shots can be hit as open-faced, closed or flat shots with reference to the racket head. No arbitrary rule can be set in spite of the fact that we have often heard, "The backhand is an open-faced shot." "On the forehand the player must turn the racket face over the ball." In other words, the player should cover it. The ideal, of course, is to be able to hit all three ways, dependent upon what is called for on the shot. Standard can be talked of in terms of flat for medium high balls, closed for high, and open for low.

The backhand shot certainly lends itself more readily to open-faced shots, and the tendency on both forehand and backhand shots recently has been to get away from covering the ball on either side. Again, there is nothing wrong with teaching both shots that way.

The important thing is to make this hitting area as long as possible, with caution exerted against overdoing it. A player should be encouraged to reach out on the ball after contacting it, to get the feeling that he is carrying it into court. In a good stroke, the ball will usually feel heavy on his racket, and it is essential that there be a certain amount of thrust of the racket head and wrist through the ball.

### Ending the Stroke

Many endings will be the result of what a player is doing in the hitting area. If spin is his aim, probably the ending will tend to be high and even back over his shoulder. If a flat



shot is desired, the ending will probably tend toward being straight. Certainly it would seem advisable not to stress endings, but to concentrate on the hitting area.

To sum up the essentials — the racket should be back early, hitting from a balanced base, and a comfortable distance from the ball. The player's weight should be flowing naturally into the shot. There should be forward motion of the racket, and an inside-out-swing, with the racket head thrusting through the ball in the hitting area.

We hope that some of the ideas contained in this article will help tennis players toward sounder ground strokes. Then they can pave their way properly into offensive tennis and at the same time be able to develop their defensive games.

## Gymnasium

(Continued from page 8)

of the adjoining pieces. Because of the construction the floor has more spring per square inch than most floors. In addition to basketball, the floor is set up for badminton, volleyball, tennis, and parallel bars.

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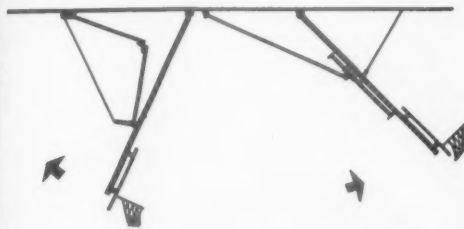
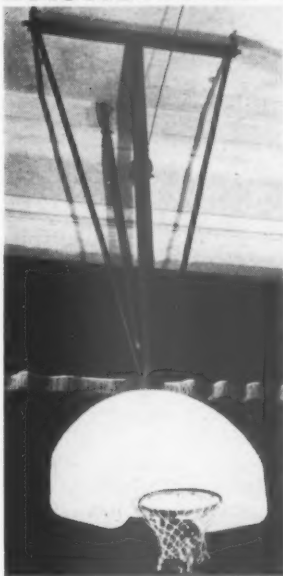
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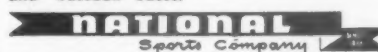
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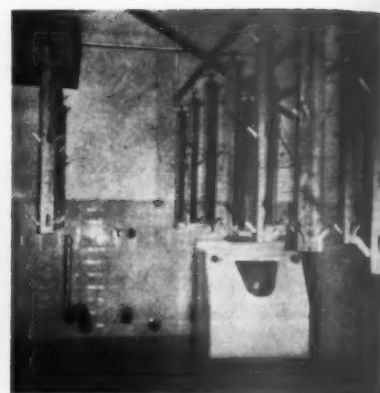
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## Football Conditioning

(Continued from page 48)

chest. On the count of 1 his left leg is raised and his right hand reaches out to touch the toes of his left foot. At the same time he bends at the waist, raising his back off the ground. On the count of 2 he lies back down; on 3 his right leg and left hand are used; on 4 he is back down. This exercise will definitely build up the muscles of the abdomen and lower back.

**Front-Bridge.** The boy lies face down. On the count of 1 his entire body (with the exception of his abdomen) is raised from the ground, and his legs and arms are extended as much as possible. On 2 he relaxes and lies flat again. Before he finishes he will place his hands behind his back and rock it out for 30 seconds. This exercises will stretch the muscles which seem to be contracting too much.

**Leg-Stretcher.** The player is instructed to lie flat on his back with his arms extended laterally or perpendicularly to his body with the palms down. On the count of 1 his left leg is raised up toward the sky; on 2 it is placed over so it touches his right hand; on 3 it goes back skyward; and on 4 it is down. We use the same procedure for the right leg. The coach must be careful to see that the boys keep both hands on the ground at all times. If they do not, all is lost. This exercise will keep the

posterior hamstring muscles from cramping, and it stretches the lower back region.

**Groin-Stretcher.** Standing up, the boy's left foot is extended out in front with his right leg back. On the 1 count the boy bends at the waist, and his hands touch the ground. On the count of 2 he is up. After about 16 counts the position of his legs is changed. Before the exercise is over, we have the boys put both hands on the ground with their legs up under their chests. On the count of 1 the left leg is extended and on 2 it is retracted, with the right leg being extended. It is repeated for about 32 counts. This exercise does just about what its name implies.

**Back-Bridge.** Helmets may be worn for this exercise. The boy lies on his back with his feet spread and his knees bent; his elbows are at his side with his fists pointing skyward. On the count of 1 he pushes up so that only his feet, elbows, and head are on the ground; on 2 he goes down. One of these exercises is performed every five minutes. After the boy's neck becomes warm, he folds his arms on his chest. On 1 he pushes up, and only his feet and head are touching the ground. This is a wonderful exercise for strengthening the neck. A broken neck is probably the worst injury that can occur in football.

**Grass-Drill.** Last, but not least, this

exercise will take the place of some disliked wind sprints. The boys run at half to full speed in place for fifteen seconds, then rest for fifteen. The fifteen-second rest period represents the huddle for the game. While the boys are running in place we call front and they all dive to the ground and immediately get up, running. The next time we may call back, and they roll backwards. They do not go all the way over. When they get up again they are facing the coach. On this exercise the boys must stay awake, and they must put out or it is the track after practice. To make this exercise fun and competitive the best boy is selected each time, and he stands out in front and calls directions. This gives him a break, and the players seem to strive for a break. Of course, we try to select different boys each day. This exercise is a very good one, and it will certainly get the boys into the habit of hitting the ground and bouncing right back up. We do not permit any boy to lie on the ground while he is on the field. A drill of this nature will also quicken a team's thinking.

We have referred to textbooks on anatomy and physiology to see just what muscles we were developing. Most of the larger muscles used in this great game of football can be developed if the exercises we have given are used.

Evidence of the value of this physical conditioning program can be found by checking our insurance claims and injury records.

We have written this article in the hope that our experience will be of some help. If a team has been jinxed with injuries in the past, give this program a try. Believe me, we learned the hard way.

## Lacrosse Practice

(Continued from page 46)

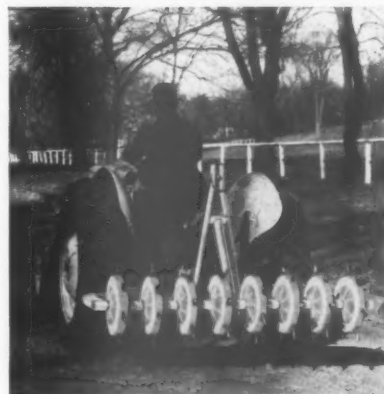
gymnasium for an hour. Four drills are used in this area. In the first one the players are in a line, with the first player running up to within about 10 feet of the brick wall and throwing the ball against the wall. The next player in line catches the ball on one bounce and repeats the maneuver. Next, the players go through the same drill only they catch the ball in the air rather than permitting it to bounce. In the third drill we go back to the one bounce, but have every other player catch the ball, circle, and throw to the first player in the line. This first player will throw the ball against the wall and it will be

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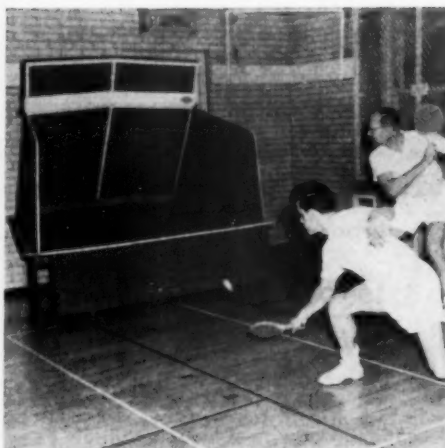
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caught on the bounce by the next player. These three drills are combined with a weave for 15 minutes each to make up our hour's time. If an outside wall is available, these wall drills should definitely be made a part of each day's practice for the beginner.

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## Putting

(Continued from page 27)

od of putting, the shoulders are scarcely used. In the pendulum method of putting, the player's shoulders actually form the base for his hands and arms to stroke the ball. In either case, his shoulders should be relaxed. Whenever there is tension of the shoulders, it tends to result in tension in the player's arms and hands.

*Arm Position for Good Putting.* The function of the arms is basic to all good putting. It is absolutely necessary for the player to understand that his arms should have freedom to come into the ball. While it is true that some of the great putters seem to use their legs as a means to restrain their arms as the ball is stroked, in the final analysis the arms must have freedom to come into the ball. A

**CONRAD REHLING** graduated from Taylor University. Following service in the navy he received his master's degree from Springfield College. For the past seven years Rehling has been at the University of Florida where he has taught the fundamentals of golf to almost 3500 students. He is author of the book, "Golf for the Physical Education Teacher and Coach," published by Wm. C. Brown Co.



player's left arm should be as straight as possible, depending, of course, on his stance and total body position. The muscles in the left arm should not be tense but rather loose. His right arm should be held close in to his right hip. It should not be in a tense position but firm.

The following items are essential for good putting: 1. The player's feet should be in a comfortable position. 2. His knees are flexed for relaxation. 3. He places his head directly over the ball. 4. The club should be gripped firmly but not tight. 5. His arms should be in a comfortable position. 6. The ball should be lined up in relation to breaks of the green. 7. The putter blade goes back low and comes through low on the swing. 8. All putts should be hit firmly. 9. A player should be a bold putter. 10. The player should have mental confidence that the ball will go into the cup.

Illustration 1 shows the reverse overlapping grip. The shaft of the putter is across the palm of the player's left hand so that it crosses his forefinger between the base and the first joint. It angles across the fingers with the pressure of the shaft more in the heel of his left hand. The thumb of the player's left hand extends down the shaft of the club. Thus the face of the putter is kept in a constant plane as it comes into the ball. Then the club is held more by the fingers of the right hand and is held more firmly by the palm of the left hand. As in all shots in golf, the back of the player's left hand points toward the target or cup. The index finger of his left hand goes down and across the knuckles of the three fingers of his right hand. His right hand then is placed on the shaft of the club with the thumb going down the shaft of the club.

In Illustration 2 we see the first phase of the pendulum method of putting. The reverse overlapping grip is used, and the stance is square. The ball is played inside of the player's left foot, with his weight favoring the left side of his body. His right arm is held close to his right side, but it must have freedom to move without hitting his right hip. His left arm is bent, with the left elbow pointing toward the cup. This position helps to line the ball up with the cup. His knees are in a flexed position. The putter blade must be sitting at right angles to the cup. It must be remembered that the ready position is most important in making any putt.

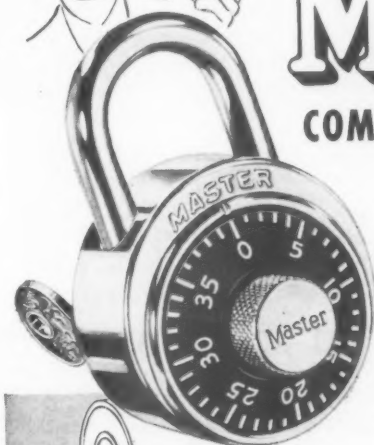
Illustration 3 shows the second phase of the pendulum method of putting. This is a critical phase of all



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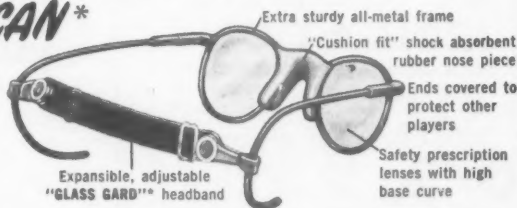
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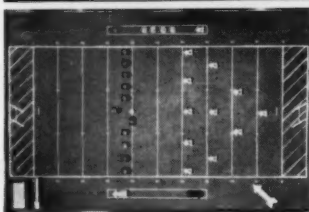
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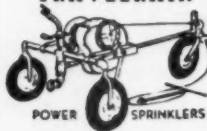
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putting. The player's wrists and hands remain locked and the motion is started with the action of his shoulders and arms alone. At this point the putter blade actually goes somewhat to the inside of the directional line which aids the putter to come back through in a straight line to the ball. This factor is true for all golf shots. The player's left arm is still bent and his right elbow is still close to his right side. He has the feeling that the putter is pushed with the action of his shoulder. His hands do not grip tensely but with a sense of firmness. It must be remembered that the length of the backswing depends on the distance of the putt.

The third phase of the pendulum method of putting is shown in Illustration 4. A player's hands and wrists remain locked; his arms and shoulders do most of the work. His left arm has kept its elbow still pointing toward the cup, with his right elbow and arm still close to his right side. The club face comes into the ball square to the cup, and the club head remains low to the ground toward the cup.

Illustration 5 shows the first phase of the hinge method of putting. A player's right and left arms are held close into his body. The ball is played off the inside of his left heel. His hands grip the club with a feeling of firmness but not tenseness. The back of his left hand is pointing toward the cup, with the palm of his right hand also in line with the hole. His knees are flexed and the weight favors the left side of his body. The face of the club should be square with the cup, and the shaft of the club should be perpendicular to the ground.

The second phase of the hinge method of putting is shown in Illustration 6. A player's hands hinge, by breaking his wrists, with the putter blade going slightly to the inside of the directional line of the putt. It is important that the blade of the putter be kept low to the ground, going back and through the ball. His fingers are gripping the club firmly but not tensely. The length of the arc of the swing is not too far, depending upon the distance of the putt.

Illustration 7 shows the third phase of the hinge method of putting. As the putter blade is coming into the ball, it should be square and kept low as it goes towards the target. Considerable practice is necessary to get the feel of the amount of hinge that is required for the various distances, plus the touch, to make sure the putter blade is square to the ball as it goes toward the target.

## The Huddle

(Continued from page 42)

feel that this system gives us any kind of an edge on the opposition, we will continue to use it.

If a coach has a squad that is a eager but undermanned, we would certainly recommend this approach. He should see that his team is in good condition. A superbly conditioned team can upset the entire plan of action of a superior opponent. The big boys on the opposing team dislike being rushed all the time.

It might be a good idea to use this system against some team in the middle of the season next fall. It can easily be taught in one week. The surprise element could be just enough to pull an important contest out of the fire. It is interesting to watch the morale of the defensive team sag when the players are unable to get together and discuss defensive assignments before each play. The big linemen will complain when they do not get a chance to get down on all fours and regain their wind. We think a number of coaches will agree with us, it is a very effective offensive device.

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# Tennis Tactics

By JOHN A. KRAFT, JR.

Memphis Country Club, Memphis, Tennessee

**T**ACTICS in winning tennis depend on the player's ability and the stroke production of his opponent. It is wise to gamble the first four games of a match in an attempt to analyze an adversary. This does not mean conceding four games. However, time is required to develop a plan of attack and to notice strokes which may not be working as well as others on that day. The plan should be generalized. Sometimes it is wise to permit an opponent to carry the attack. He may select the net position, try out the effect of a chop to the backhand or bring into service powerful ground strokes.

By gambling during the first four games the player will be able to determine the court positions his opponent prefers, his method of offense, and his best strokes.

If a player wins two of the first four games, he should continue to play from the area he selects. Should the opponent lose the first set, his confidence will be shaken.

After losing the opening set, an opponent may use tactics in the second set which are less adapted to his talents and stroke production, and thus he is more likely to fail.

When he is on the short end of a three to one or four games to love score, a player should try to take the offensive. This is not difficult if he has determined the area of the court he prefers and the type of returns he likes to hit.

An adversary who is favoring a net attack will attempt to move into the fore court on every opportunity.

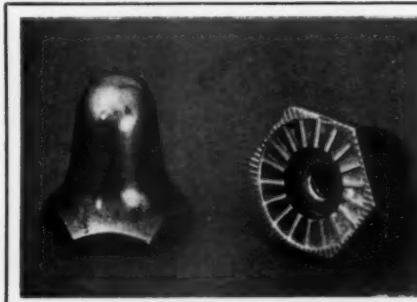
These occasions should be minimized by driving with depth to both sides and keeping him near the baseline. Normally, a net rusher lacks patience and will take the fore court after a short rally. Should he take drives on the rise, his opponent should vary the spin of his ground strokes by using chop and excessive topspin. Timing, which is so essential in taking a ball on the rise, is then particularly difficult.

If the opponent is a hard-driving baseliner, there are ways of forcing him from his selected position. The player should begin with the drop shot. This stroke is executed with the same backswing as the forehand drive. The top bevel of the racket should recede as it is brought forward toward the ball, and the face should be turned under at the moment of contact.

When the baseliner abandons his position and takes the net, the other player can require him to volley-up by using a series of heavily topped drives until he is given an opportunity to earn a placement down the side-lines or cross-court. The lob should be used sparingly, in order to keep the baseliner inside the service court where drives will be of little use to him.

Occasional chops to the forehand and backhand may be useful against this type of player. They serve to disrupt the timing of his strokes and take the speed from his fast drives.

An all-court player presents another problem in tennis. Court strategy is not as effective against this type of performer. The opponent must deter-



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mine the all-court player's peculiarities of footwork or stroke production and sometimes his conditioning.

The all-court player's backswing should be studied first. If it is slow and the arch full, this type of player will find it difficult to hit his best shots when he is hurried. He should be forced by having returns placed close to his feet.

Is he in condition physically? Could he beat back a strong net attack? Sometimes a weakness may be observed in a short backhand cross-court which permits an easy advance to the net. Again, a weakness can be discovered in the simple failure to vary the direction of ground strokes.

During a match a player should not persist in using strokes that are not working. If his drop shot is bouncing too high or falling ineffectively on his side of the net, he should try other strokes. He should never attempt to iron out difficulties in an important set.

In tennis a player should be ready to change his tactics when it is obvious that his present method will not be successful, but under no circumstances should he alter them in a winning game.

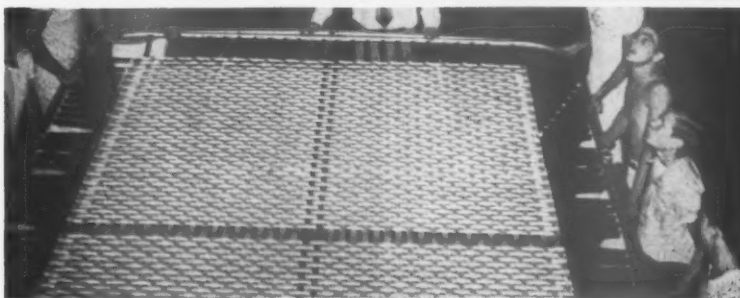
Efforts on the part of a player should be co-ordinated to the game score. He should establish in his mind the relative importance of winning a game or group of games. He should consider his physical condition, the court surface, and the number of sets to be played. If he tires easily, loses touch or is playing an opponent whom he realizes will improve as the match progresses, he should concentrate on an early victory.

Experts seldom appear rushed in the execution of net and ground strokes. They are not more rapid of foot than the average athlete. This ability lies in the importance they attach to early anticipation of returns and the significance of correct court position.

In receiving service a player should stand at the angle established by the intersection of the baseline with the inside alley line. He should face the net, allowing his weight to be carried slightly forward. If the fingers of his left hand are placed at the throat of his racket, the grip can be changed easily for returns to either side.

Ground strokes should be practiced to develop a sound defense and a well-organized attack. The player should learn to vary the speed and direction of his stroke, and employ pace and accuracy to bolster offensives.

A tennis player should advance to his net behind deep, forcing drives



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IN EQUIPMENT AND IDEAS

For further information see Service Coupon, page 80

**T**HIS is the third golf photo-lesson chart which The MacGregor Company of Cincinnati, Ohio has issued in the interest of the game of golf. The charts are printed on a heavy stock which makes them suitable for bulletin board use. This year's charts feature Doug Ford on putting and Lou Worsham on the wedge shot. The pictures on the wedge shot use an ingenious system of lines to show the position of the body at all times throughout the swing. Posters are free by checking the Service Coupon.



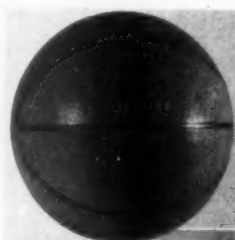
**T**HE new "RTB" single bar face protector is molded of colored "Tenite," the same material used in the Rawlings "Head Cushion" helmet. It is available in royal blue, scarlet, light gold, white, and transparent colors. This face protector is easy to attach, affords protection to the lower face and jaw, and permits excellent visibility. A colored folder is available from Rawlings Sporting Goods Co., 2300 Delmar Blvd., St. Louis 3, Mo., or by using the Service Coupon.

**B**UILT into the ball, identified as the "590 DeLuxe," are many outstanding features. An improved formula "Kolite" cover incorporates plateau top pebbling to assure more positive finger-tip control. A specially processed Nylon winding butyl bladder and "Kantleek" all-rubber valve make this an outstanding ball. The construction method used in producing this ball was developed by the laboratory technicians of the Seamless Rubber Co., New Haven 3, Conn.



**P**ERFECT for demonstrating offensive tactics and defensive techniques is this "Playmaster" baseball coaching kit. The chalk writing surface is finished in green and tan. The players, ball, umpires, spot play indicator, chalk holder, and eraser are magnetic. The DeLuxe board is 24"x36" and is made of steel. In addition, there are 66 self-adhesive labels to show positions and players' numbers. There are also basketball, football, lacrosse, hockey, and soccer boards. The Program Aids Co., Inc., 550 Fifth Ave., New York 36, N. Y.

**T**HE "Par-Kit" package will prove a big aid to those who are teaching golf. It contains a plastic gripfinder which is taped to the club and thus teaches proper grip for the putt and chip shots. Also included is the "Golf Swing Gauge." This item has a sighting arrow which locates the line of direction and a club pathfinder which teaches the inside-out line for every club. Finally, there is a 16-page booklet, "Golf's Inside Secrets." Price \$4.95. Golf Research Institute, County Road, Westport, Conn.



and make returns from the fore court as decisively as possible. The element of surprise should be utilized by attacking with the backhand. Drives and drop shots are more likely to succeed when the opponent is not set to make returns. Confidence in the backhand can be obtained by frequent use in practice.

Players should be at their best for every important match. They should know their strength and study and exploit the weaknesses of each opponent.

## Injured Knee

(Continued from page 30)

ever, a good grade of rubber provides the requirements mentioned. By using thin strips of bicycle inner tube, elastic tape, and adhesive tape, we have been able to duplicate, to a degree at least, the action of the damaged knee tissues and to relieve them of some of their strain.

The length of inner tube strips used will vary with the weight and height of the injured boy, but 12-inch strips will work in most cases. Strips should not be wider than one-half inch, or they will pull out from under the tape when stretched into place. For games and hard practices, we apply strips from two sections of inner tube, but use less on days of light workouts, such as before a game.

Strips of tape about six inches long should be stuck to both ends of the rubber band. Thus sufficient surface to hold the band in place after stretching is provided (Illustration 1). After cutting the bands, we proceed as follows:

1. Apply two or three strips of adhesive tape at right angles to the leg above and below the knee because

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there will be considerable tension from the rubber bands, and the strips will serve as anchors to prevent slipping (Illustrations 2 and 3).

2. Place a small piece of felt or sponge rubber over the damaged area.

3. Cross two strips of elastic tape over the felt, and one strip parallel to the leg and across the felt (Illustration 4). Do not stretch the elastic tape, but just put it on smoothly. We found these strips helped to prevent *creeping* of the bandage above and below the knee after the bands were applied. They will also prevent irritation from the rubber bands.

4. Anchor the ends of the elastic tape with adhesive tape. (For sake of clarity the previous steps are eliminated in the balance of the drawings)

5. Run five strips of the inner tube across the injured area, parallel to the leg (Illustration 5). It is not necessary to put too much tension on any one band, because the pull of all the bands together will be sufficient.

6. Criss-cross the remaining bands, until the entire area to be strengthened is covered (Illustrations 6 and 7).

7. Firmly anchor the ends by running overlapping strips of adhesive tape at right angles to the leg above and below the knee. Do not go entirely around, as the leg will swell upon running, and the tape becomes too tight. Anchor the ends of these strips with strips applied from behind, so that they overlap the front strips by an inch or so. This will keep the ends from coming loose when pulling on pads or pants, or upon perspiring (Illustrations 8 and 9).

At first we applied this taping to both sides of the knee. However, it was found to be quite effective when applied only to the injured side of the leg. Although we did not have occasion to try it out this past year, we feel that this taping method could also be used to help support and hold an injured shoulder.

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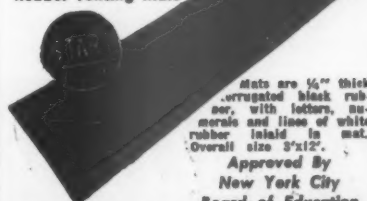
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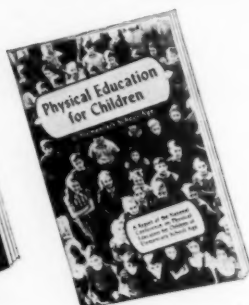
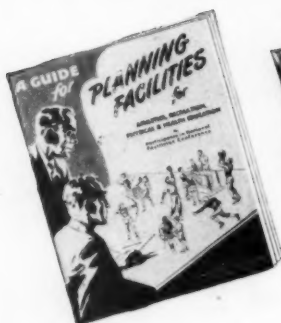
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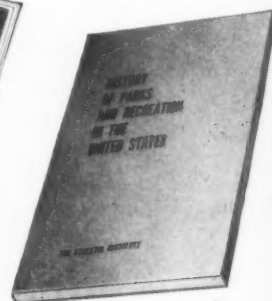
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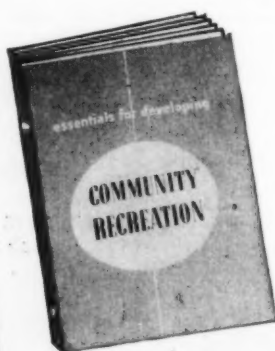
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## Future Olympic Champions

(Continued from page 20)

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MacGregor Co., The, 76, ☐ Free golf posters  
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- ☐ Plans for building a rope maze, tackling dummy, and seven-man sled, \$1.00
- ☐ Locker room slogans, \$1.00
- Athletic Institute, The, 78, See advertisement for list of books for sale
- National Golf Foundation, 27, See advertisement for list of books
- Ohio High School Football Coaches Clinic, 72, ☐ "Notes 1955 Ohio High School Football Coaches Clinic," \$4.00
- Olson, Carl H., 77, ☐ Track and Field Score Cards, 75 cents per set
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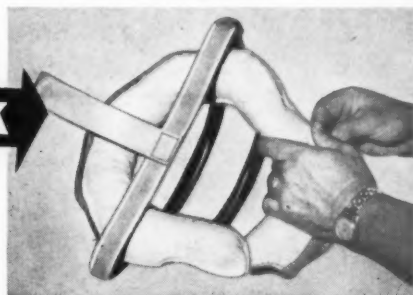


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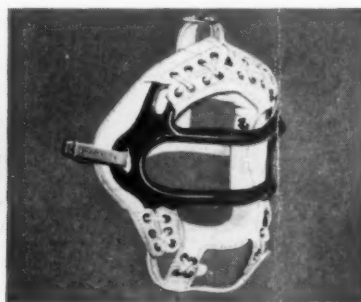
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